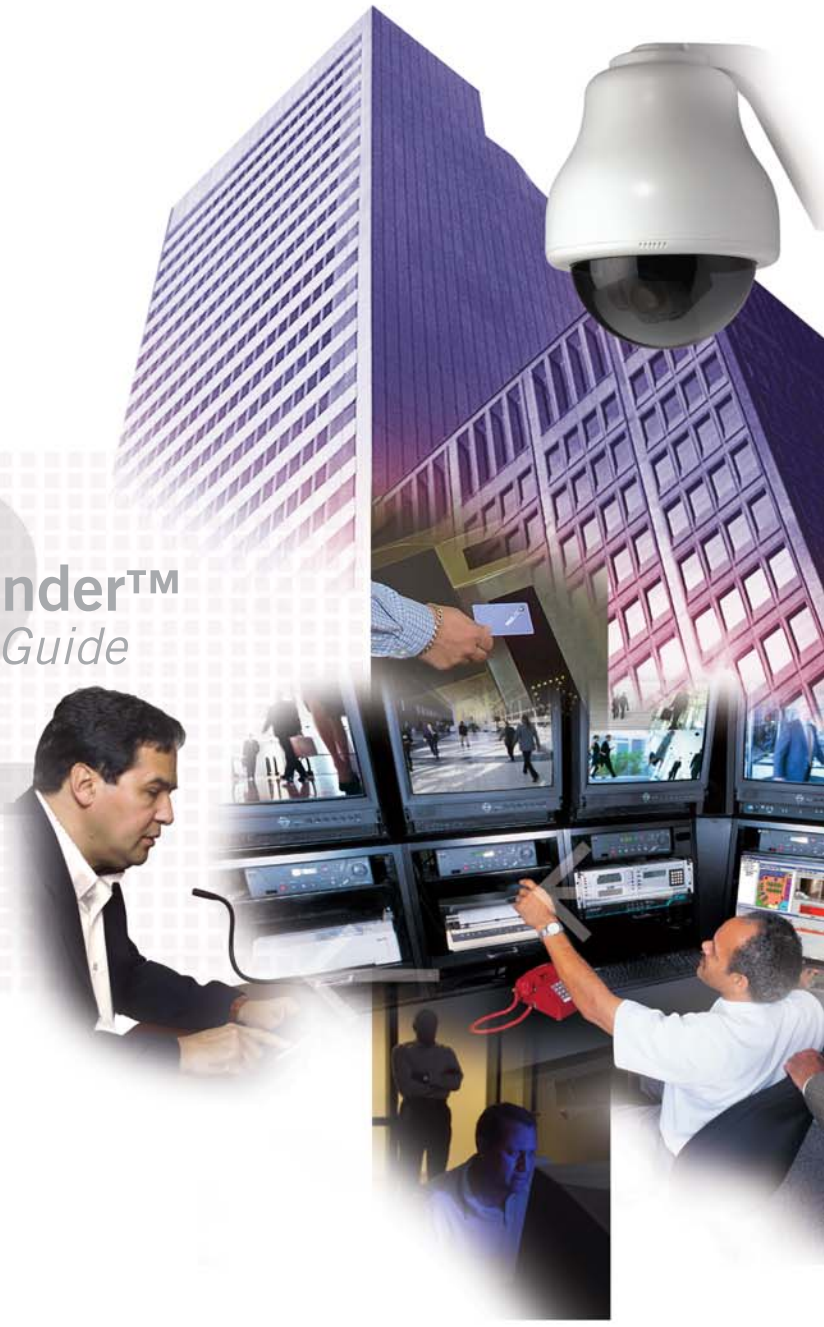
GE Security

Facility Commander™

Administration Guide

v2



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Contents

About Document 1

Who Should Use This Document 1
How This Document Is Organized 1
Using This Document 3
Demonstrations 3
Conventions Used In This Document 4
Related Documents 5

Chapter 1. Introduction 7

Overview 8
Video Management 9
Centralized Video Management 9
Distributed Video Management 10
Minimum System Requirements 12
Remote Media Server 13
Web Browser and Client Workstations 14

Chapter 2. Getting Started 15

Overview 16
Starting and Shutting Down Facility Commander 16
Facility Commander Launcher 16
Minimizing Facility Commander Launcher 18
Logging In from a Workstation 19
Logging In Using the Web Application 21
Using the Web Browser Application 21
List Page 22
Browser Menu 25
Configuration Page 26
Managing Multiple Windows 27
Client Application Title Bars 28
Customizing Window Name and Contents 29
Error Messages 30
Navigating the Multi Viewer 31
Customizing the Multi Viewer 32

Chapter 3. Configuring the System 33
Checklist 34
Facility Commander Servers 37
Viewing Facility Commander Servers 37
Adding a Facility Commander Server 38
Access Control Systems 44
Viewing Access Control Systems 44
Adding an Access Control System 45
Workstations 51
Configuring the Alarm Alert Window 51
Launching the Video Viewer Automatically 51
Intercom Stations 51
Viewing Defined Workstations 52
Adding a Workstation 53
System Parameters 56
Launch Video Viewer by Alarm Priority 56
Require an Alarm Response 56
Configure Video Pre-Play Time 56
Configuring System Parameters 57
System Shutdown 59
Shutdown Notification to Client Applications 59
Shutdown Notification to Browser Configuration Clients 59
Shutting Down the System 59

Chapter 4. Importing Records 61
Overview 62
Tag Names, Descriptions, and Record IDs 62
Time Zones 62
Synchronize Records 63
Terminology 63
Operator Records 65
Operator Passwords 65
Operator Preferences 65
Viewing Facility Commander Operators 66
Adding Operators 67
Removing Default Account 71
Importing Operators 72
Changing Operator Preferences 73
Facilities 74
Viewing Facilities 75
Importing Facilities 76
Creating a Facility 77
Members Tab 78
Parent Facility Tab 79
Window Filter 80
Changing Contents of View 80
Access Points 81
Viewing Imported Access Points 81
Importing Access Points 82
Editing Access Points 83
Synchronizing Access Points 86
Digital Inputs and Outputs 87
Viewing Digital Inputs 87
Importing Digital Inputs 88
Editing Digital Inputs 89
Synchronizing Digital Inputs 92

Viewing Logical Inputs 93
Importing Logical Inputs 94
Editing Logical Input Records 95
Synchronizing Logical Inputs 98
Viewing Digital Outputs 99
Importing Digital Outputs 100
Editing Digital Outputs 101
Synchronizing Digital Outputs 104

Chapter 5. Assigning Permissions and Context 105

Overview 106
Facilities 106
Permissions 106
Context 106
Pre-Defined Permissions and Context 107
Examples 107
Checklist 107
Facility Permissions 109
Using Pre-Defined Facility Permissions 109
Viewing Facility Permissions 110
Adding Facility Permissions 111
System Permissions 115
Using Pre-defined System Permissions 115
Viewing System Permission 116
Adding System Permissions 117
Contexts 120
Viewing Context Definitions 120
Adding Context Definitions 121
Pre-defined Contexts 124
Examples 125

Chapter 6. Configuring Video Devices 127

Overview 128
Video Devices 128
Configuring Video IQ 129
Configuring the DVMRe 129
Configuring Digital Video Recorders 131
Viewing DVRs 131
Adding DVRs 132
Configuring Cameras 138
Viewing Cameras 138
Adding Cameras 139
Configuring Camera Preset Positions 143
Viewing Camera Preset Positions 143
Adding Camera Preset Positions 144
Linking Cameras to DVRs 145
Configuring Analog Switchers 147
Viewing Analog Switchers 147
Adding an Analog Switcher 148
Configuring CCTV Monitors 154
Viewing CCTV Monitors 154
Adding CCTV Monitors 155
Associating Analog Switcher Devices 157
Troubleshooting Steps 159

Chapter 7. Using the Video Viewer 161
Overview 162
Automatically Launch by Alarm Priority 162
Multiple Camera Views 163
Drag and Drop Cameras 163
Navigating the Video Viewer 164
Controlling Cameras 167
Live Video 167
Recorded Video 167
Event Action Mapping 167
Viewing Live Video 168
Adjust the Camera Lens 168
Viewing Recorded Video 169
View a Single Video Frame 169
Searching for Video 170
Search by Token 170
Search By Date and Time 172
Search by Play Position 173
Customizing the Video Viewer 174
Add Customized Window Title 174
Managing Window Content 175
Display Camera Identification 175
Display Additional Video Panes 176

Chapter 8. Event Action Mapping 177
Overview 178
Viewing Event Action Mappings 179
Tagging Video Events for Access Points 180
Tagging Video Events for Intercom Calls 181
Activating Digital Outputs 182
Sending Automatic E-mails 183
Events in Event Action Mapping 184
Actions in Event Action Mapping 188

Chapter 9. Configuring Alarms 191
Overview 192
Configuring the Alarm Monitor 193
Synchronization 193
Setting Alarm Colors 194
Creating Alarm Instructions 196
Creating Alarm Profiles 198
Adding an Alarm Profile 199

Chapter 10. Using the Alarm Monitor 201
Overview 202
Automatically Launch Video Viewer by Alarm Priority 202
Alarm Alert 203
Navigating the Alarm Monitor 204
Customizing the Alarm Monitor 207
Changing Window Name and Contents 207
Display Multiple Time Zones 208
Launch Video Automatically 210
Responding to Alarms 211
Alarm Response Required 211

Chapter 11. Using the Event Monitor 215
Overview 216
Navigating the Event Monitor 216
Alarm Events List 219
Badge Events List 220
System Events List 221
Setting Event Monitor Options 222
Changing the Event Types Filter 223
Event Types List 224
Customizing Window Name and Contents 226

Chapter 12. Configuring Intercom Devices 227
Overview 228
Terminology 228
Checklist 228
Configuring Intercom Exchanges 229
Viewing Intercom Exchanges 229
Adding an Intercom Exchange 230
Configuring Intercom Stations 236
Viewing Intercom Stations 236
Adding Intercom Stations 237
Tips for Creating Symbol Schemes 242
Intercom Exchange Symbol Scheme 242
Intercom Master Station Symbol Scheme 243
Intercom Substation Symbol Scheme 244

Chapter 13. Configuring Intrusion Devices 245
Overview 246
Terminology 246
Configuring Intrusion Devices 247
Connecting Intrusion Panels 247
Ethernet Connection 247
RS-232 Connection 249
Configuring Intrusion Panels 250
Viewing Intrusion Panels 250
Adding Intrusion Panels 251
Configure Intrusion Areas 257
Viewing Intrusion Areas 257
Adding Intrusion Areas 258
Configuring DGPs 262
Viewing Intrusion DGPs 262
Adding Intrusion DGPs 263
Configure Intrusion Input 266
Viewing Intrusion Input 266
Adding Intrusion Inputs 267
Configure Intrusion Outputs 271
Viewing Intrusion Outputs 271
Adding Intrusion Outputs 272
Configure Intrusion Keypads 275
Viewing Intrusion Keypads 275
Adding Intrusion Keypads 276

Chapter 14. Creating Symbol Schemes 281
Overview 282
Using the Symbol Editor 283
Creating a Symbol Scheme 287
Creating an Intrusion Symbol Scheme 288
Managing Symbol Editor Files 290
Uploading a Symbol Scheme 290
Downloading a Symbol Scheme 290
Deleting a Symbol Scheme 291
State Associations and Conditions 291

Chapter 15. Creating Graphic Displays 297
Overview 298
Using the Graphics Editor 299
Drawing Tools 303
Graphic Attributes 304
Creating a Graphic Display 306
Associating Access Points and Other Devices 307
Associating Camera Devices 308
Associating Intercom Devices 309
Creating Intrusion Areas 310
Adding Text Labels to the Site Map 311
Saving the Site Map 312
Importing AutoCAD Drawings 312
Maintain Layers in AutoCAD Drawings 315
Linking Graphic Displays 316
Building Hierarchical Displays 318
Working with Layers 321
Creating a New Layer 321
Selecting a Layer 322
Renaming a Layer 323
Removing a Layer 323
Moving Objects Between Layers 324
Managing Graphic Display Files 324
Uploading Graphic Displays 324
Downloading Graphic Displays 326
Deleting Unused Files 327
Editing Graphic Display Records 328

Chapter 16. Viewing Graphic Displays 331
Overview 332
Alarm States 333
Navigating the Graphics Viewer 334
Opening Graphic Displays 336
Selecting Layers 337
Issuing Commands 338
Lock and Unlock Doors 339
View Video from a Specific Camera 340
View Video from Monitor Devices 341
Enable or Disable Input Devices 342
Connect and Disconnect Intercom Devices 343
Arm or Disarm Intrusion Areas 344
Customizing Window Name and Contents 345
Printing Graphic Displays 346

Chapter 17. Backup/Restore SQL Server 2000 Database 347
Overview 348
Backing Up Windows Files 349
Backing Up a SQL Server 2000 Database 353
Restoring Files on Windows 2000 357
Restoring a SQL Server 2000 Database 361

Chapter 18. Backup/Restore Informix and Oracle Databases .. 367
Overview 368
Backup Modes 368
Backup Types 369
Requirements (Tape Backups) 369
Tape Labels 369
Backing Up Database Records 370
Informix Database 371
Backing Up Files 373
Restore Procedures 375
Restore Incremental Backups 379
Restore Database 380

Chapter 19. Viewing Diagnostics 385
Overview 386
Changing Diagnostics Settings 387
Editing the Diagnostics Settings 387
Resetting Diagnostics Statistics 388
ATS Panel Intrusion 389
Database Connection Pool 390
Database Transactions Diagnostics 391
Database Queries Diagnostics 392
Facility Membership Cache 393
JVM Statistics 394
Media Diagnostics 395
Service Framework Diagnostics 396
System Status Diagnostics 397
Thread Pool Manager Diagnostics 398

Chapter 20. Advanced Configuration 399
Customizing Launcher Window 400
Adding Custom Icons 400
Adding External Applications 401
Verifying Computer Host Name 402
Changing the Host Name or IP Address 403
Changing the Client Encryption 405
Changing the Host Name on Server Record 405
Editing the System Configuration File on Server 406
Editing the SSL File on Server 407
Changing the Computer Name on Server 408
Changing the Server Name in SQL Server 409
Editing the Host File on a Client System 410
Editing the Client Properties File on a Client System 411
Editing the Picture Perfect Configuration File 411
Enabling SSL Encryption for Picture Perfect 412
Copying File from Facility Commander 413
Moving File to Picture Perfect 414

Generating Picture Perfect Key File 414
Generating Picture Perfect Certificate Request 415
Generating Picture Perfect Signed Certificate 416
Generating Picture Perfect PEM File 416
Updating EIF Event Manager Configuration File 416
Updating EIF Request Manager Configuration File 418
Copying Certificate to Facility Commander Server 420
Adding Picture Perfect Certificate 421
Enabling SSL Communication on Facility Commander 422
Enabling SSL Encryption for Secure Perfect 423
Secure Perfect SSL Certificate Creation 423
Multiple Secure Perfect SSL Connections 424

Appendix A. Edit Configuration Files for Informix Backup to Disk 425

Configuration Files 426
Editing the Backup Utility Configuration File 427
Editing the Informix Configuration File 428
Scheduling the Backup Utility 429
Create a Cron Task 429
Launch the Script Manually 429

Appendix B. Troubleshooting Information 431

Appendix C. Error Messages 435

Appendix D. Facility Permissions 467

All Facility Permissions 467
Entry Level Guard Facility Permissions 470
Guard Supervisor Facility Permissions 472
Intermediate Guard Facility Permissions 474
Update Configuration Facility Permissions 476
View Configuration Facility Permissions 478

Appendix E. System Permissions 481

All System Permissions 481
Entry Level Guard System Permissions 483
Guard Supervisor System Permissions 484
Intermediate Guard System Permissions 485

Appendix E. Demos 487

List of Figures

Figure 1. Single server with centralized video 9
Figure 2. Typical configuration with one Media Server. 10
Figure 3. Facility Commander Launcher window 17
Figure 4. Facility Commander Launcher (minimized) elements 18
Figure 5. Facility Commander Login Screen 19
Figure 6. Browser Interface — Login page 21
Figure 7. Browser Interface — List Page 22
Figure 8. Browser menu 25
Figure 9. Browser Interface — Configuration Page 26
Figure 10. Title bars with window numbers, and other information 28
Figure 11. Window Filter window 29
Figure 12. Configuration pages with error messages 30
Figure 13. Multi Viewer window 31
Figure 14. Facility Commander Servers page 37
Figure 15. Configure Facility Commander Server page 38
Figure 16. Configure Facility Commander Server — Address tab 39
Figure 17. Configure Facility Commander Server — E-mail Server tab 40
Figure 18. Configure Facility Commander Server — Advanced tab 41
Figure 19. Configure Facility Commander Server — Alarms tab 42
Figure 20. Configure Facility Commander Server — Facilities tab 43
Figure 21. Access Control Systems page 44
Figure 22. Configure Access Control Systems page 45
Figure 23. Configure Access Control System — Address tab 46
Figure 24. Configure Access Control System — External System tab ..47
Figure 25. Configure Access Control System — Advanced tab 48
Figure 26. Configure Access Control System — Alarms tab 49
Figure 27. Configure Access Control — Facility Tab 50
Figure 28. Alarm Alert window 51
Figure 29. Workstations page 52
Figure 30. Define Workstation page 53
Figure 31. Workstations — General tab 54
Figure 32. Workstations — Facility tab 55
Figure 33. Configure System Parameters page 57
Figure 34. Shutdown System page 59
Figure 35. Operators page 66
Figure 36. Configure Operator page 67
Figure 37. Configure Operator — General tab 68

Figure 38. Configure Operator — External System tab 69
Figure 39. Configure Operator — Facility tab 70
Figure 40. Import page 72
Figure 41. Set Operator Preferences 73
Figure 42. Facilities page 75
Figure 43. Import page 76
Figure 44. Configure Facility — Add New Facility 77
Figure 45. Configure Facility — Members tab 78
Figure 46. Configure Facilities — Parent Facility tab 79
Figure 47. Window Filter page 80
Figure 48. Access Points page 81
Figure 49. Import page 82
Figure 50. Configure Access Point page 83
Figure 51. Configure Access Point — General tab 84
Figure 52. Configure Access Point — Facility tab 85
Figure 53. Synchronize page 86
Figure 54. Digital Inputs page 87
Figure 55. Import page 88
Figure 56. Configure Digital Input page 89
Figure 57. Configure Digital Input — General tab 90
Figure 58. Configure Digital Input — Facility tab 91
Figure 59. Synchronize page 92
Figure 60. Logical Inputs page 93
Figure 61. Import page 94
Figure 62. Configure Logical Input 95
Figure 63. Configure Logical Input — General tab 96
Figure 64. Configure Logical Input — Facility tab 97
Figure 65. Synchronize page 98
Figure 66. Digital Output page 99
Figure 67. Import page 100
Figure 68. Configure Digital Output 101
Figure 69. Configure Digital Output — General tab 102
Figure 70. Configure Digital Output — Facility tab 103
Figure 71. Synchronize page 104
Figure 72. Context definition 106
Figure 73. Facility Permissions page 110
Figure 74. Configure Facility Permissions page 111
Figure 75. Facility Permissions — Controls tab 112
Figure 76. Facility Permissions — Monitors tab 112
Figure 77. Facility Permissions — Setup tab 113
Figure 78. Facility Permissions — Devices tab 114
Figure 79. System Permissions 116
Figure 80. Configure System Permissions page 117
Figure 81. Configure System Permissions page — Applications tab ..118
Figure 82. Configure System Permissions page — Editors tab 118
Figure 83. Configure System Permissions page — Operations tab 119
Figure 84. Contexts page 120
Figure 85. Define Context page 121
Figure 86. Define Context — Permissions tab 122
Figure 87. Define Context — Facility tab 123
Figure 88. Two regional facilities and four imported facilities. 125
Figure 89. Digital Video Recorders page 131
Figure 90. Configure Digital Video Recorder page 132
Figure 91. Configure DVR — Model tab 133

Figure 92. Configure DVR — Addresses tab 134
Figure 93. Configure DVR — Advanced tab 135
Figure 94. Configure DVR — Alarms tab 136
Figure 95. Configure DVR — Facility tab 137
Figure 96. Cameras page 138
Figure 97. Configure Camera page 139
Figure 98. Configure Camera — General tab 140
Figure 99. Configure Camera — Alarms tab 141
Figure 100. Configure Camera — Facility tab 142
Figure 101. Camera Presets page 143
Figure 102. Configure Camera Preset page 144
Figure 103. Digital Video Recorders page 145
Figure 104. Link Cameras page 146
Figure 105. Analog Switchers page 147
Figure 106. Configure Analog Switcher page 148
Figure 107. Configure Analog Switcher — Model tab 149
Figure 108. Configure Analog Switcher — Addresses tab 150
Figure 109. Configure Analog Switcher — Advanced tab 151
Figure 110. Configure Analog Switcher — Alarms tab 152
Figure 111. Configure Analog Switcher — Facility tab 153
Figure 112. CCTV Monitors page 154
Figure 113. Configure CCTV Monitor page 155
Figure 114. Analog Switcher Inputs and Outputs page 157
Figure 115. Inputs and Outputs File Upload page 158
Figure 116. Illustration of multiple views in Video Viewer 163
Figure 117. Video Viewer 164
Figure 118. Video Token Search window with Select Date window ... 170
Figure 119. Video Token Search window —Time Search tab 172
Figure 120. Window Filter window 175
Figure 121. Event Action Mappings page 179
Figure 122. Configure Event Action Mapping page 180
Figure 123. Configure Event Action Mapping page 181
Figure 124. Configure Event Action Mapping page 182
Figure 125. Configure Event Action Mapping page 183
Figure 126. Select Alarm Color Scheme page 194
Figure 127. Edit Alarm Color Scheme page 195
Figure 128. Alarm Instructions page 196
Figure 129. Configure Alarm Instruction page 197
Figure 130. Alarm Profiles 198
Figure 131. Define Alarm Profile 199
Figure 132. Alarm Alert window 203
Figure 133. Alarm Monitor window 204
Figure 134. Window Filter window 207
Figure 135. Alarm Monitor Options window — Columns tab 208
Figure 136. Alarm Monitor Options window — Setup tab 210
Figure 137. Alarm Response window 212
Figure 138. Event Monitor window 217
Figure 139. Event Monitor Options window 222
Figure 140. Event Type Filter 223
Figure 141. Window Filter window 226
Figure 142. Intercom Exchanges page 229
Figure 143. Configure Intercom Exchanges page 230
Figure 144. Configure Intercom Exchanges — Model tab 231
Figure 145. Configure Intercom Exchanges — Addresses tab 232

Figure 146. Configure Intercom Exchanges — Advanced tab 233
Figure 147. Configure Intercom Exchanges — Alarms tab 234
Figure 148. Configure Intercom Exchanges — Facility tab 235
Figure 149. Intercom Stations list page 236
Figure 150. Configure Intercom Station page 237
Figure 151. Configure Intercom Station — General tab 238
Figure 152. Configure Intercom Station — Monitoring tab 239
Figure 153. Configure Intercom Station — Alarms tab 240
Figure 154. Configure Intercom Stations — Facility tab 241
Figure 155. Example Intercom Exchange Symbol Scheme 242
Figure 156. Example Intercom Master Station Symbol Scheme 243
Figure 157. Example Intercom Substation Symbol Scheme 244
Figure 158. Intrusion Panels page 250
Figure 159. Intrusion Panel page 251
Figure 160. Intrusion Panel — Model tab 252
Figure 161. Intrusion Panel — Addresses tab 253
Figure 162. Intrusion Panel — Advanced tab 254
Figure 163. Intrusion Panel — Alarms tab 255
Figure 164. Intrusion Panel — Facility tab 256
Figure 165. Intrusion Areas page 257
Figure 166. Configure Intrusion Area page 258
Figure 167. Configure Intrusion Area — General tab 259
Figure 168. Configure Intrusion Area — Alarms tab 260
Figure 169. Configure Intrusion Area — Facility tab 261
Figure 170. Intrusion DGPs page 262
Figure 171. Configure Intrusion DGP page 263
Figure 172. Configure Intrusion DGP — Alarms tab 264
Figure 173. Configure Intrusion DGP — Facility tab 265
Figure 174. Intrusion Inputs page 266
Figure 175. Configure Intrusion Inputs page 267
Figure 176. Configure Intrusion Inputs — General tab 268
Figure 177. Configure Intrusion Inputs — Alarms tab 269
Figure 178. Configure Intrusion Inputs — Facility tab 270
Figure 179. Intrusion Outputs page 271
Figure 180. Configure Intrusion Outputs page 272
Figure 181. Configure Intrusion Outputs — General tab 273
Figure 182. Configure Intrusion Output — Facility tab 274
Figure 183. Intrusion Keypad page 275
Figure 184. Configure Intrusion Outputs page 276
Figure 185. Configure Intrusion Keypad — General tab 277
Figure 186. Configure Intrusion Keypad — Alarms tab 278
Figure 187. Configure Intrusion Output — Facility tab 279
Figure 174. Symbol Editor window 284
Figure 175. Attach window with available symbols 287
Figure 176. Attributes Panel window 288
Figure 177. Input window 291
Figure 177. Graphics Editor window 300
Figure 178. Graphic Attributes window 305
Figure 179. Device Palette window 306
Figure 180. Set Association button 307
Figure 181. Set Association window 307
Figure 182. Set Association window 308
Figure 183. Set Association window 309
Figure 184. Graphic Editor with defined intrusion area 310

Figure 185. Adding text to drawing in Graphics Editor window 311
Figure 186. Import AutoCAD Drawings window 312
Figure 187. Drawing limits window 313
Figure 188. Select Layers to Import window 314
Figure 189. Import DXF menu options 315
Figure 190. Layer Settings with imported and non-imported layers 315
Figure 191. Hyperlink icon and associated graphic display 316
Figure 192. Change Linking Properties button 316
Figure 193. Hyperlink Settings window 317
Figure 194. Hierarchal map arrangement 318
Figure 195. Hyperlink Path Settings window 320
Figure 196. Create New Layer window 321
Figure 197. Layer settings window 322
Figure 198. Rename Layer window 323
Figure 199. Select layer window 323
Figure 200. Select Layer window 324
Figure 201. Upload window 325
Figure 202. Download window 326
Figure 203. Deleting Graphics Files window 327
Figure 204. Graphic Displays page 328
Figure 205. Configure Graphic Display page 329
Figure 205. Graphics Viewer window 334
Figure 206. Download window 336
Figure 207. Show/Hide Layer window 337
Figure 208. Site map with action menu 339
Figure 209. Lock and unlock door options 340
Figure 210. Graphic display with video devices 340
Figure 211. Graphical display with monitors 341
Figure 212. Monitor window 342
Figure 213. Graphic display with an intercom device 343
Figure 214. Graphic display with an intercom device 344
Figure 215. Window Filter 345
Figure 216. Print View window 346
Figure 217. Windows 2000 Backup and Recovery Tools window 349
Figure 218. Backup window 350
Figure 219. Backup destination 350
Figure 220. Backup Job Information window 351
Figure 221. Advanced Backup Options window 352
Figure 222. SQL Server Enterprise Manager window 353
Figure 223. SQL Server Backup window 353
Figure 224. Select Backup Destination window 354
Figure 225. SQL Server Backup window 355
Figure 226. SQL Server Backup window 356
Figure 227. SQL Server Enterprise Manager window 356
Figure 228. Backup window 357
Figure 229. New Import Media window 358
Figure 230. Backup [Restore] window 358
Figure 231. Options (Backup - Restore) window 359
Figure 232. Backup [Restore] window - bottom pane 359
Figure 233. Confirm Restore window 359
Figure 234. Restore Progress window 360
Figure 235. SQL Server Enterprise Manager window 361
Figure 236. Restore database window 362
Figure 237. Choose Restore Devices window 362

Figure 238. Choose Restore Destination window 363
Figure 239. Choose Restore Devices window 363
Figure 240. Restore database window 364
Figure 241. Choose Restore Devices window 364
Figure 242. Restore Progress 365
Figure 243. Restore Progress window 365
Figure 244. Backup Utility 370
Figure 245. Starting a full-level database backup 371
Figure 246. Database backup complete 372
Figure 247. Backup verification 372
Figure 248. Start backup of files 373
Figure 249. Waiting to start file backup verification 374
Figure 250. Successful file backup verification 375
Figure 251. Backup Utility 376
Figure 252. Start Restore process with tape in drive 377
Figure 253. File restoration complete 378
Figure 254. Restore incremental backups 379
Figure 255. Wait for database tape to be loaded 380
Figure 256. Restore details 380
Figure 257. Prompt for salvaging logs 381
Figure 258. Logical logs restored 381
Figure 259. Restore log tapes 382
Figure 260. Reboot system to start database 383
Figure 261. Diagnostics page 387
Figure 262. Diagnostics Edit page 388
Figure 263. Component Diagnostics page 389
Figure 264. Database Connection Pool page 390
Figure 265. Database Transactions 391
Figure 266. Database Queries page 392
Figure 267. Facility Membership Cache page 393
Figure 268. JVM Diagnostics page 394
Figure 269. Media Diagnostics page 395
Figure 270. Service Framework Diagnostics page 396
Figure 271. System Status Diagnostics page 397
Figure 272. Thread Pool Diagnostics 398
Figure 273. Notepad application added to Launcher window 401
Figure 274. Sample System Configuration file 406
Figure 275. Sample SSL file 407
Figure 276. Identification Changes window 408
Figure 277. Connect to SQL Server window 409
Figure 278. SQL Query Analyzer 409
Figure 279. SQL Server Service Manager window 410

About Document

This document describes Facility Commander and its components. It also includes instructions to configure the system and use the client applications.

Who Should Use This Document

This document is intended for system administrators who are responsible for planning, configuring, and operating Facility Commander.

Administrators should be familiar with personal computers, client and server relationships, databases, Web browsers, and graphical user interface (GUI) navigation. They must also have a working knowledge of the following:

- Picture Perfect application
- Secure Perfect application
- Digital Video (CCTV) equipment
- Intercom equipment
- Intrusion equipment
- Database operations
- Security needs of the customer's facility

Operators using the system should read the chapters relating to their duties and responsibilities.

How This Document Is Organized

This document is organized as follows:

- Chapter 1. Introduction on page 7 describes the system components, and describes how remote media servers are used to transmit video.
- Chapter 2. Getting Started on page 15 describes the Facility Commander Launcher, instructions on how to log in to the system using the client application, and the Web interface.

- Chapter 3. Configuring the System on page 33 describes setting up the system by identifying the Facility Commander server, Picture Perfect server, Secure Perfect, system parameters, and more.
- Chapter 4. Importing Records on page 61 describes how to import Picture Perfect and Secure Perfect operators, facilities, doors, and other records to Facility Commander.
- Chapter 5. Assigning Permissions and Context on page 105 describes how to assign operator permissions.
- Chapter 6. Configuring Video Devices on page 127 describes how to configure DVRs, cameras, and camera preset positions, as well as CCTV Monitors and Analog Switchers.
- Chapter 7. Using the Video Viewer on page 161 describes how to view live and recorded video; and how to search for video clips.
- Chapter 8. Event Action Mapping on page 177 describes how to associate events to actions. When an alarm occurs, video events can be tagged for later investigation, to send e-mails, and more.
- Chapter 9. Configuring Alarms on page 191 describes how to change alarm colors, create alarm instructions, and alarm profiles.
- Chapter 10. Using the Alarm Monitor on page 201 describes using the Alarm Monitor window, how to select time zones, and view maps and video of alarm events.
- Chapter 11. Using the Event Monitor on page 215 describes the Event Monitor window and how to filter events.
- Chapter 12. Configuring Intercom Devices on page 227 describes how to configure intercom devices.
- Chapter 13. Configuring Intrusion Devices on page 245 describes how to configure intrusion devices and instructions to use when connecting the intrusion equipment to Facility Commander.
- Chapter 14. Creating Symbol Schemes on page 281 describes how to create a symbol scheme to use with graphic displays. Also included are instructions to upload and download files.
- Chapter 15. Creating Graphic Displays on page 297 describes how to use the Symbol Editor and Graphic Editor to associate icons representing devices with graphical displays, or site maps.
- Chapter 16. Viewing Graphic Displays on page 331 describes how to use the Graphics Viewer, display different layers, and issue commands such as locking and unlocking doors.
- Chapter 19. Viewing Diagnostics on page 385 describes the information needed to monitor the system.
- Appendix C.on page 435 lists Facility Commander error messages and suggestions to resolve the errors.
- Appendix B.on page 431 lists miscellaneous problems and describes the causes and appropriate actions.
- Appendix E.on page 487 lists the animations that are included with this document. Refer to *Demonstrations* on page 3 for more information.

Using This Document

This document is available in portable document format (PDF). The PDF document has been designed for online, interactive viewing with Adobe® Acrobat® Reader Version 4.0 or later.

The Acrobat Reader is available for the Windows®, Macintosh®, Unix®, Linux®, and IBM® AIX®. The Acrobat Reader can be obtained for free from Adobe Systems Incorporated (*http://www.adobe.com*).

The table of contents, bookmarks, cross-references, index entries, and thumbnail pages are active navigation elements. Cross-references and links are displayed in blue. Select these elements to quickly move through the document. Any page in the document or the entire document can be printed while viewing it in the Acrobat Reader.

Demonstrations

This document has been designed with hyperlinks to animations that demonstrate how to complete a particular task. When you see this film strip, double-click to launch the demo.

Click icon to see demo.

To take advantage of this feature, make sure the demo files reside in the same directory as the Facility Commander Administration Guide PDF file.

Refer to Appendix E.on page 487 for a complete list of demos in the Administration Guide.

The animations are designed to display with Internet Explorer 6.0 or later.

Conventions Used In This Document

The following conventions are used in this document:

Bold type	• Text to be entered by the reader. • Menu items, buttons, programs, and other GUI elements selected with a mouse or keyboard by the reader.
Italic type	• Titles of books and various documents. • Cross-references to headings within a document. • E-mail and Web site (or URL) addresses. • Emphasis of an instruction or point. • Variables.
Monospace type	• Text that displays on the computer screen • Examples of path names or coding sequences
Blue, *blue*, or *blue* type	• In online versions of this document, hyperlinked elements that take the reader directly to the cross-references, related topics, and URL addresses.

Related Documents

The following documents contain information about the Picture Perfect application:

- *Picture Perfect AIX® Installation Guide*
  This document describes how to install and configure the Picture Perfect application and the AIX operating system; and connect hardware, such as modems, printers, and micro controllers.
- *Picture Perfect Linux® Installation Guide*
  This document describes how to install and configure the Picture Perfect application and the Linux/AIX operating systems; and connect hardware, such as modems, printers, and microcontrollers.
- *Picture Perfect Administration Guide*
  This document describes how to configure, and manage the Picture Perfect application. It describes the Picture Perfect interface and contains step-by-step procedures to use the application.
- *Picture Perfect Enterprise Administration Guide*
  This document describes how to configure, and manage the Picture Perfect Enterprise application. It describes the Picture Perfect interface and contains step-by-step procedures to use the application.
- *Picture Perfect Redundant Administration Guide*
  This document describes how to configure, and manage the Picture Perfect Redundant (PPRS) application. It describes the Picture Perfect interface and contains step-by-step procedures to use the application.

The following documents contain information about the Secure Perfect application:

- *Secure Perfect Installation Guide*
  This document provides information for system administrators to set up, install, and configure the Secure Perfect 5.0 application.
- *Secure Perfect Online Help System*
  The online help system includes reference information about menus, windows, and field descriptions. Instructions for system administrators, such as configuring microcontrollers, are included and more.
- *Secure Perfect Database Triggers*
  This document contains instructions to import and link external databases, such as human resources databases, to Secure Perfect. Imported data is inserted into the Secure Perfect database to make the task of configuring operator records easier.
- *Secure Perfect and Microsoft Access 2002*
  This document is used only for writing custom reports using Access 2002 database projects and Secure Perfect databases.

Chapter 1. Introduction

This chapter describes Facility Commander and its features, including integrated video and video management. Readers should familiarize themselves with this chapter before proceeding to other chapters in this document.

In this chapter:

Overview on page 8
Video Management on page 9
Minimum System Requirements on page 12

Overview

Facility Commander is a security integration platform that provides integrated digital video, analog video switchers, intercom, and intrusion with access control. It interfaces with Picture Perfect and Secure Perfect, which continue to perform all access control, alarm, and reporting tasks.

The main features of Facility Commander include a comprehensive alarm management system with direct access to graphical maps and video clips from the Alarm Monitor, and a high-level command and control interface to Digital Video Recorders (DVRs) and their connected cameras.

Configuring Facility Commander is accomplished using a Web browser, such as Internet Explorer. Operators select which facilities, doors, inputs, and outputs they want to control from Facility Commander and import these records from the access control system.

The alarm events associated with these devices can be configured to perform any number of actions in Facility Commander. For example, if a door has a video camera monitoring it, whenever a Door Forced alarm occurs, the system can be configured to send an e-mail notice to the Security Supervisor, and also tag the video clip so it can be reviewed later.

Monitoring the system is accomplished using the Facility Commander Launcher, which provides the capability to monitor alarms and control video cameras. All alarms generated by Picture Perfect or Secure Perfect are sent to the access control system's Alarm Monitor, and also to the Facility Commander Alarm Monitor. From the Facility Commander Alarm Monitor, security personnel can perform all of the operations that they can do on Picture Perfect or Secure Perfect, and more.

The Facility Commander Command and Control client features include:

- Create or import site maps for graphical representation of device and alarm locations
- Associate symbols and icons with devices, such as doors, intercoms, intrusion devices, and cameras
- Display a graphical map showing the location of an alarm and the alarm state
- Control devices from graphical maps, such as locking or unlocking a door
- Acknowledge alarms from either the graphical map or from the alarm monitor
- View recorded video clips associated with alarm events
- View live video from fixed or PTZ cameras
- Control a PTZ camera on-screen by using the mouse to pan, tilt, and zoom
- Search for video clips stored on a DVR by event, event type, camera, or DVR

Video Management

The key feature of Facility Commander is integrated digital video. There are two architectural configurations available, depending on the organization's size and geographic locations.

If the site is relatively small or in one central location, then the Facility Commander server can manage the video services.

In large environments with several geographically distributed sites, it may be undesirable to transmit video clips across the network. In this case, adding a Remote Media Server to the system improves the video transmission process.

Centralized Video Management

Using a single server configuration, this example describes the events that occur when an operator wants to see video. The Facility Commander server in Figure 1 has two DVRs with four cameras and two client workstations.

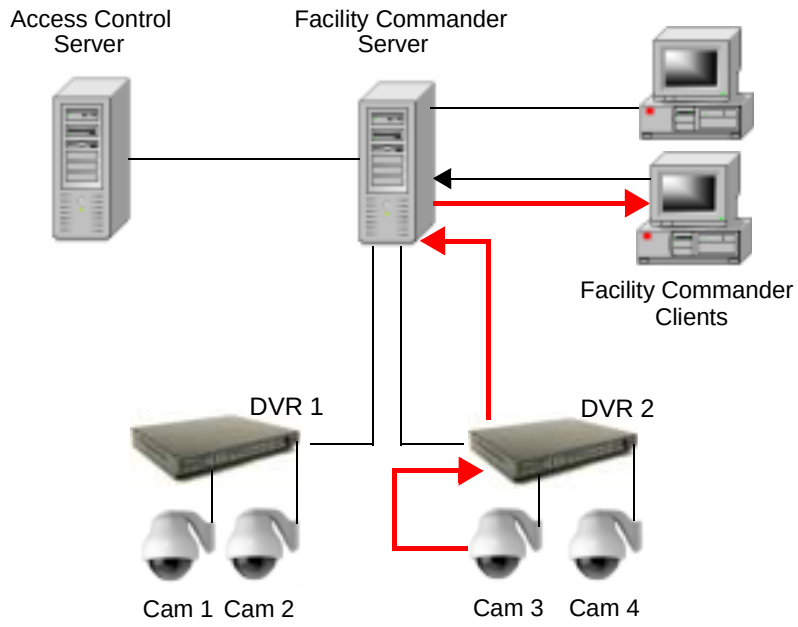

Figure 1. Single server with centralized video

The illustration includes the following process:

- The client workstation sends a message to Facility Commander server requesting a connection to camera two.
- The Facility Commander server performs a lookup in the database to identify which DVR the camera is connected to, and which server system manages the DVR. In this example, there is only one server configured in the network.

- The Facility Commander sends a reply to the client with the server identification. The client workstation opens a TCP/IP socket connection to the Facility Commander server to receive the video stream.
- The Facility Commander server sends video from the associated DVR to the client workstations. Using the Video Viewer application, the operator is able to view the video stream from camera two.

Distributed Video Management

Using a Facility Commander server with a Remote Media Server, this example describes the events when an operator from a remote location wants to see video. The Facility Commander system has two sites in Figure 2, each with two DVRs, four cameras, and two client workstations.

In this example, the Media Server transmits the video from the camera device to the client application. The illustration in Figure 2 shows two systems that can be located anywhere — in the same city or different cities.

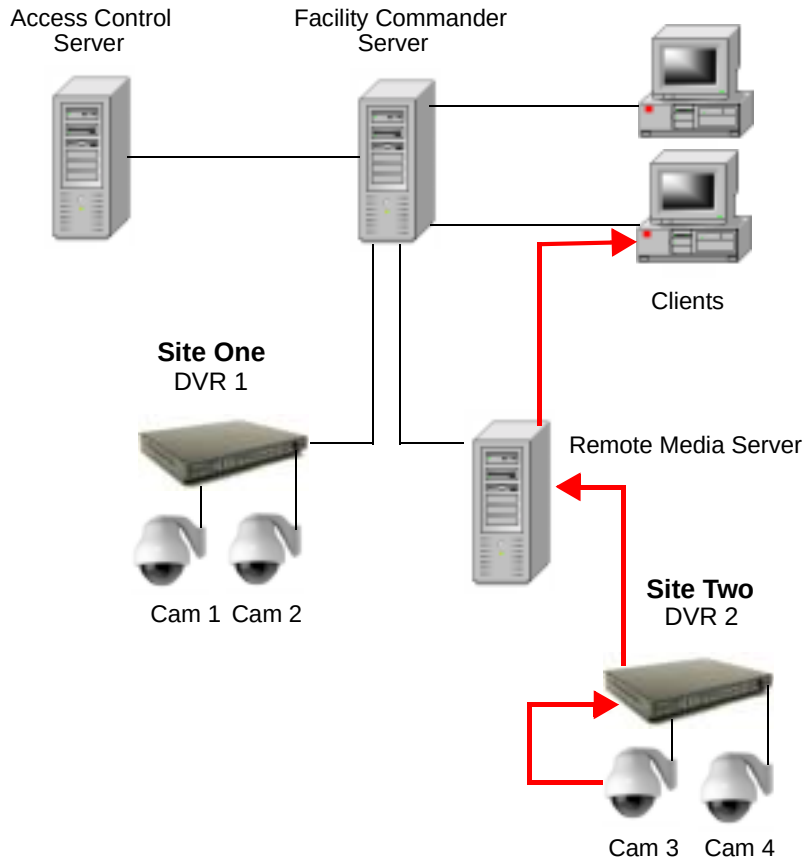

Figure 2. Typical configuration with one Media Server.

The example describes the events when an operator using the Video Viewer on the client system requests video from camera five at preset position number two. This camera device is located at site two, which is managed by the Media Server as shown in Figure 2 on page 10.

- The client system sends a message to Facility Commander server requesting a connection to camera five and preset position two.
- The Facility Commander server performs a lookup in the database to identify which DVR the camera is connected to, and which system controls the manages the components.
- The Facility Commander sends a message to the Media Server to expect a connection from the client system. The client system opens a TCP/IP connection socket to the Media Server with the server configuration to receive the video stream.
- The remote Media Server sends compressed video from the associated DVR to the client workstations. Using the Video Viewer application, the operator is able to view the video stream from camera five at the preset position two.

The Media Server guarantees that local video does not have to be processed by a Facility Commander server located remotely, but by the Remote Media Server that is closer to the client workstations.

Minimum System Requirements

Refer to the tables which follow which list system requirements for:

- Facility Commander Server
- Remote Media Server

Using GE Security-supplied computers is strongly recommended, as they have undergone significant reliability testing. If you decide to use non-GE Security supplied computers and require technical support, service is chargeable at normal Customer Support rates. Additionally, compatibility with future product releases cannot be guaranteed.

Table 1. System Requirements: Facility Commander Server

Facility Commander Server			
Function Facility Commander and its database run on the Server.			
Operating System	**Windows 2000 Server (Service Pack 4)**	• Red Hat Linux 7.3 (Informix) • Red Hat AS 2.1(Oracle)	• **FC 2.0: AIX 5L (5.1) ML 04** • **FC 2.1: AIX 5L (5.1) ML 06**
Hardware	• Dell™ Power-Edge 2600, 1.8 GHz • 512 MB RAM; recommend 1 GB • 36 GB hard drive • 24x CD-ROM drive • 20-40 GB 4mm tape drive • Intel® 10/100 Mbps NIC • 56K modem • mouse	• Dell Power-Edge 2600, 1.8 GHz • 512 MB RAM; recommend 1 GB • 36 GB hard drive capacity • 24x CD-ROM drive • 20-40 GB 4mm tape drive • Intel 10/100 Mbps NIC • 56K modem • mouse	• RISC System/6000 166 MHz (Model 7025-F40) • 512 MB RAM; recommend 1 GB • SCSI Controller • 18 GB hard drive* • 24x CD-ROM drive • 20-40 GB 4mm tape drive • Intel 10/100 Mbps NIC • 56K modem • mouse
RAID Options	• RAID1 RAID5 RAID10	• RAID1 RAID5 RAID10	• RAID 1 RAID 5 RAID10
Databases Supported	• SQL Server® 2000 Service Pack 3 (Standard Edition or Enterprise Edition) • MSDE on Windows 2000 Professional	• Informix® Dynamic Server 2000 version 9.4 • Oracle 9i version 9.2.0.1	• Informix® Dynamic Server 2000 version 9.4 • Oracle 9i version 9.2.0.3

	Facility Commander Server	
Notes	Visit the web site: http://www.redhat.com/hardware to get a complete list of computers and hardware supported by Red Hat.	* Recommend four 18 GB drives for Oracle. (Drive 1 contains the operating system, drives 2 and 3 contain the database, and drive 4 for archiving.)

Remote Media Server

Table 2 lists the system requirements for the Remote Media Server.

Table 2. System Requirements: Remote Media Server

Remote Media Server		
Function The Remote Media Server is an optional component for environments with geographically distributed sites, where it may be undesirable to transmit video clips across the network. It runs the media software and does not have a user interface and does not contain a database. The Remote Media Server connects to remote Digital Video Recorders and processes the requests for video tagging and video playback (that the Facility Commander Server would normally process in a smaller environment). Some digital video vendors' software interfaces are Windows DLL-dependent. In those cases, the Media Server must be a Windows PC		
Operating System	**Windows 2000 Professional**	**Red Hat Linux 7.3**
Hardware	• Dell OptiPlexGX260D 1.8 GHz • 512 MB memory • 20 GB hard drive • 48x CD-ROM • Intel 10/100 Mbps NIC • Alternative: Dell PowerEdge 2600	• Dell OptiPlexGX260D 1.8 GHz • 512 MB memory • 20 GB hard drive • 48x CD-ROM • Intel 10/100 Mbps NIC • Alternative: Dell PowerEdge 2600

Web Browser and Client Workstations

Table 3 lists the system requirements for the Web browser or client workstations.

Table 3. System Requirements: Web Browser or Client Workstation

Web Browser or Client Workstation	
Operating System	**Windows 2000 Professional**
Web Browser	**Internet Explorer 6.0 with Service Pack 1 or later**
Hardware	• Dell OptiPlexGX260D 1.8GHz • 256 MB memory (512 recommended) • 20 GB hard drive • 48x CD-ROM • Intel 10/100 Mbps NIC

Chapter 2. Getting Started

This chapter describes how to log in and use the Facility Commander Launcher to open other applications; and how to use the Web browser to configure the system. Also included are instructions on how to navigate the browser interface and a description of the common elements, including error messages.

Readers should familiarize themselves with this chapter before proceeding to other chapters in this document.

In this chapter:

Overview on page 16
Facility Commander Launcher on page 16
Logging In from a Workstation on page 19
Logging In Using the Web Application on page 21
Using the Web Browser Application on page 21
Managing Multiple Windows on page 27
Customizing Window Name and Contents on page 29
Error Messages on page 30
Navigating the Multi Viewer on page 31

Overview

This chapter introduces you to the Facility Commander interface and describes how to log in and access the Web browser interface and other client applications.

Starting and Shutting Down Facility Commander

Facility Commander is started automatically as a service in the Windows and Linux/AIX operating systems. Use this URL to access the Web pages to configure Facility Commander:

`http://hostname:8085/Merlin/index.htm`

Refer to *System Shutdown* on page 59 for instructions to shut down the system.

Facility Commander Launcher

When the client application is started from a workstation, it displays the Facility Commander Launcher window which allows you to launch other client applications, display Web pages to configure network parameters for client-to-server communications, and log out.

Using the Facility Commander Launcher shown in Figure 3 on page 17, you can open the Web browser and other client applications, such as:

- Alarm Monitor
- Event Monitor
- Video Viewer
- Graphics Viewer
- Multi Viewer
- Graphics Editor
- Symbol Editor

The Facility Commander Launcher window can be minimized to display as a toolbar as shown in Figure 4 on page 18. The Launcher can also be customized — you can replace the icons and you can add up-to-six additional icons to launch other applications, such as WaveReader. Refer to *Customizing Launcher Window* on page 400.

The items appearing on the Facility Commander Launcher window depend on the Facility Commander user's context and permissions. The system administrator may be able to view all the items while another operator may only be able to view the Alarm Monitor. Refer to *Assigning Permissions and Context* on page 105 for more information.

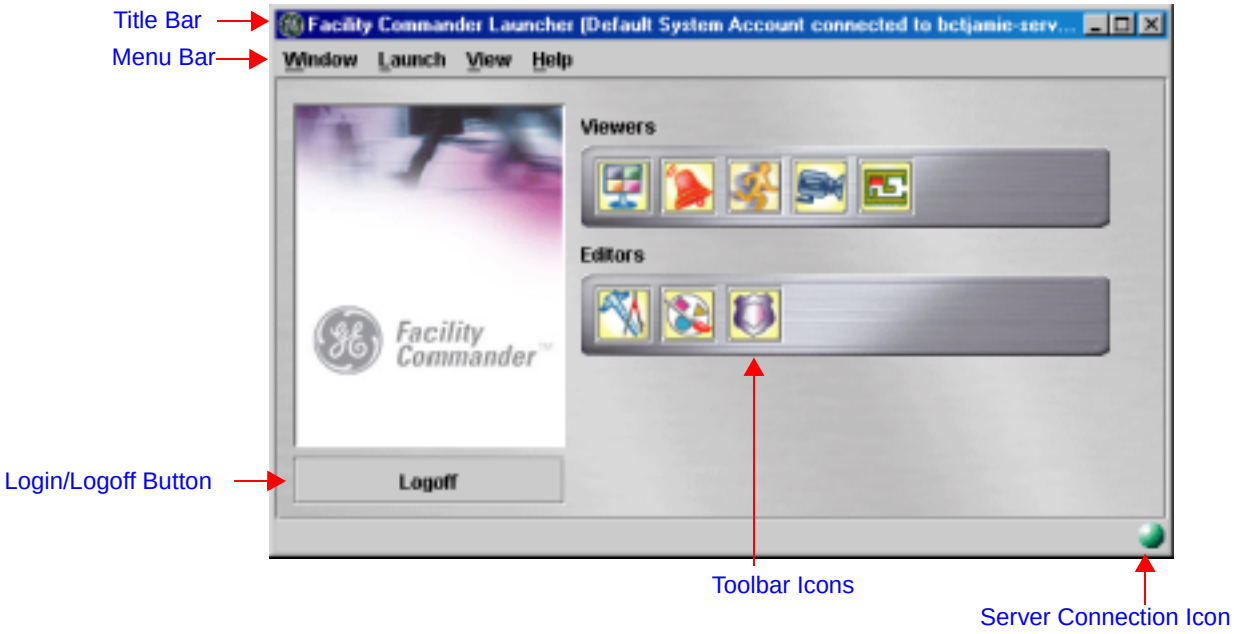

Figure 3. Facility Commander Launcher window

Table 4 lists and describes the elements of the Facility Commander Launcher.

Table 4. Facility Commander Launcher elements

Element	Description
Title Bar	Displays the user's name, the Facility Commander server name, and the user's context information.
Menu Bar	Displays a menu bar that allows you to launch the client applications, access the Facility Commander Web browser, open the Online Help system, and exit.
Login/Logoff Button	Click this button to log in to or exit from Facility Commander.
Toolbar Icons	Select the appropriate icon from the toolbar to open a client application or Web browser interface.
	Use to launch the Multi Viewer application.
	Use to launch the Alarm Monitor application.
	Use to launch the Event Monitor application.
	Use to launch the Video Viewer application.
	Use to launch the Graphic Viewer application.

Table 4. Facility Commander Launcher elements

Element	Description
	Use to launch the Graphic Editor application.
	Use to launch the Symbol Editor application.
	Use to launch the Facility Commander Web browser application.
Server Connection Icon	Indicates if the system with the client application is connected to the Facility Commander server. • Green indicates the client application is communicating with the server. • Red indicates the client application is no longer communicating with the server.

Minimizing Facility Commander Launcher

➤ **To minimize the Facility Commander Launcher window, follow these steps:**

1. Select **View**.
2. Select **Toolbar**. The minimized Facility Commander toolbar displays as shown in Figure 5.

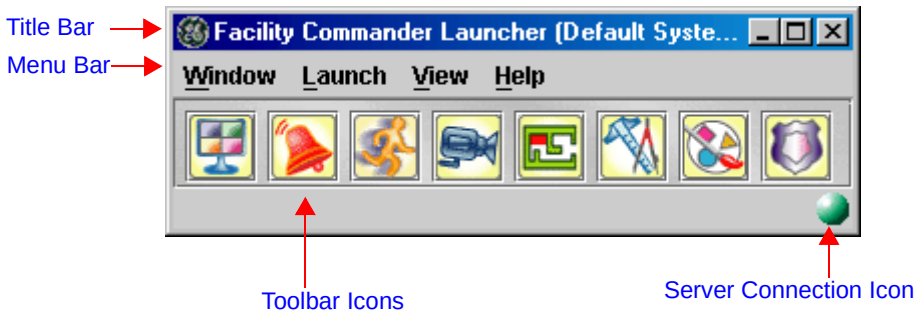

Figure 4. Facility Commander Launcher (minimized) elements

Table 5 on page 19 lists and describes the elements of the Facility Commander Launcher.

Table 5. Facility Commander Launcher elements (Minimized)

Element	Description
Title Bar	Displays the user's name, the Facility Commander server name, and the user's context information.
Menu Bar	Displays a menu bar that allows you to launch the client applications, access the Facility Commander Web browser, open the Online Help system, and exit.
Toolbar Icons	Select the appropriate icon from the toolbar to open a client application or Web browser interface. Refer to Toolbar Icons on page 17 for a description of each icon.
Server Connection Icon	Indicates if the system with the client application is connected to the Facility Commander server. • Green indicates the client application is communicating with the server. • Red indicates the client application is no longer communicating with the server.

Logging In from a Workstation

➤ **To display the Facility Commander Launcher window, follow these steps:**

1. Click **Start**, **Programs**, and then **Facility Commander Client**.
2. Select **Facility Commander Client**. The Facility Commander Login window in Figure 5 displays.

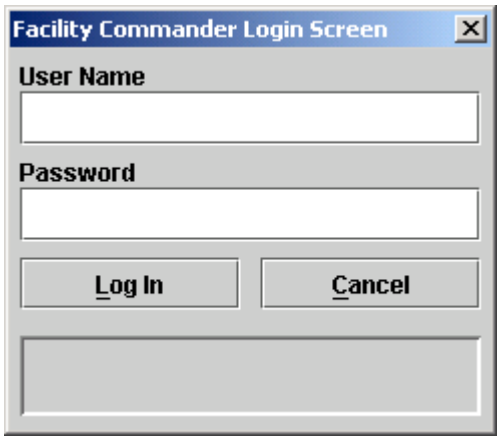

Figure 5. Facility Commander Login Screen

3. Enter a user name and password and click **Log In**. For more information about the Login window fields, refer to Table 6 on page 20.

Table 6. Login window fields

Field Name	REQ	Description
User Name	✔	Enter a valid user's name. The first time you log in you must log in with the name indicated by the System Administrator. Before you log in, an operator account must be created.
Password	✔	Enter a valid password. If you do not enter a password, an error message is displayed.

Logging In Using the Web Application

Click icon to see demo.

The Facility Commander uses a Web browser application to configure network parameters for client-to-server communications and media devices such as cameras and DVRs, add new or import existing operators from a Picture Perfect system, and more.

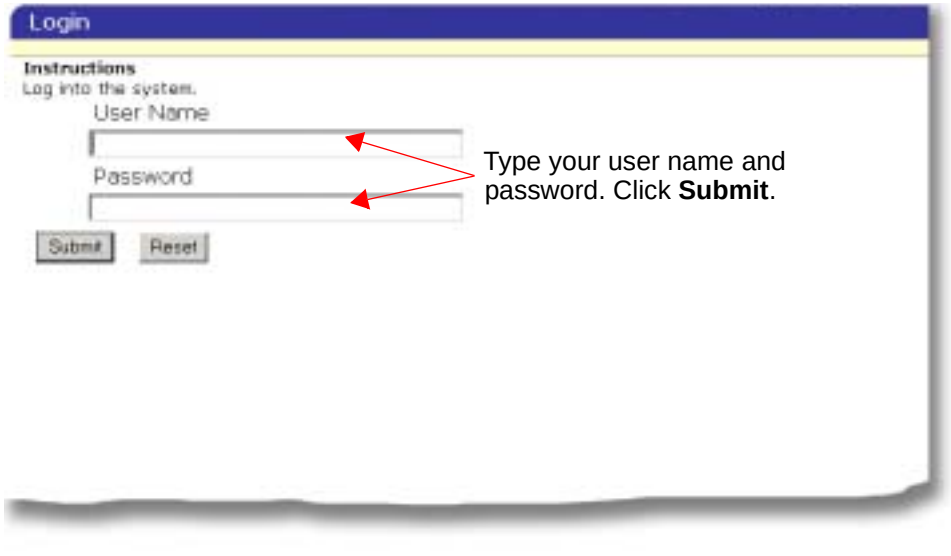

Figure 6. Browser Interface — Login page

Table 6 on page 20 lists and describes the login fields. Refer to *Using the Web Browser Application* on page 21 for more information about using the Web interface to configure Facility Commander.

Using the Web Browser Application

The Facility Commander Web browser interface displays two types of pages — a list page and a configuration page. Refer to the following sections for a description of each:

- *List Page*
- *Configuration Page* on page 26
- *Client Application Title Bars* on page 28
- *Customizing the Multi Viewer* on page 32

Common elements on both pages include: page name, system messages, navigation pane, context, page displays options, and online help.

List Page

When you select any item from the Browser Menu, the list page displays. The list page in Figure 7 shows all the defined records and is sorted in alphabetical order. The list page allows you to view, copy, or delete records.

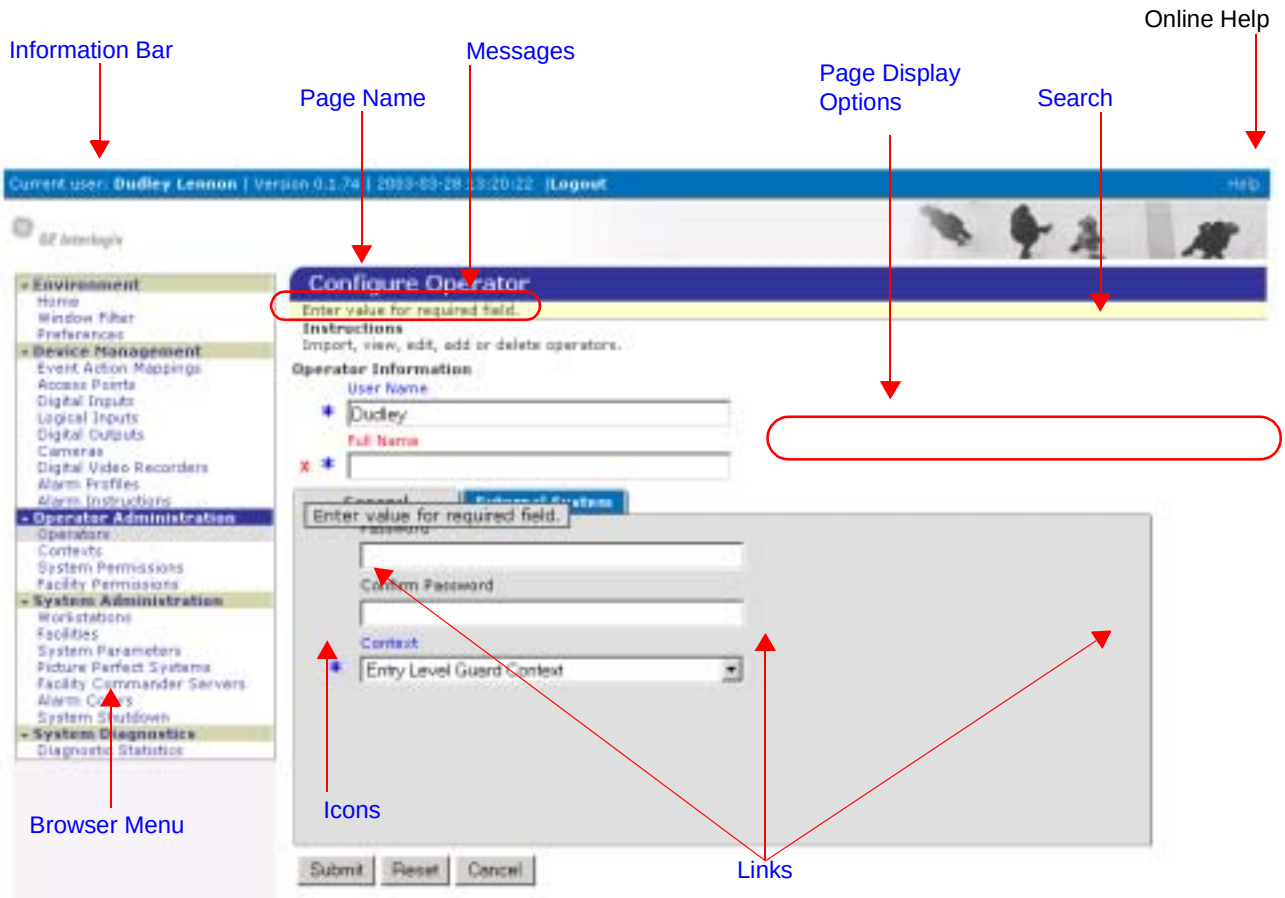

Figure 7. Browser Interface — List Page

Table 7 on page 23 lists and describes the elements of the List Web page.

Table 7. Web interface elements and descriptions

Element	Description
Information Bar	• Displays the operator's name that is currently logged in, server time, and the Facility Commander version number. Click **Logout** to exit from the system. • Click the Administration Guide link to display this book. Refer to *Using This Document* on page 3 for more information. • Click the Help link to display the Facility Commander online help system. If these links appear dimmed, install the components using the Facility Commander *Documentation and Tutorial CD*.
Page Name	Displays the name of the current page.
Messages	Displays system messages to confirm successful entries or identifies errors in the configuration.
Page Display Options	Displays the page number and the number of items listed on the page. • Use the **Previous** and **Next** arrows to move between the pages when there are multiple pages. • Or, type the page number in the text box and click **Enter** to display a specific page. • Use the **Items per Page** text box to indicate how many items you would like to view on one page.
Search	Enter text in the **Search** field and click **Go**. Using this sample text "Boca" as our search text, use one of the text formats listed below: • Beginning match: BOCA* returns all records that begin with Boca. • End match: *BOCA returns all records that end in Boca. • Any match: *BOCA* returns all records that contain the string BOCA anywhere in the field. • Exact match: BOCA returns any record that is an exact match.
Browser Menu	Select any entry in the navigation pane to display the appropriate Browser page. Refer to *Browser Menu* on page 25 for more information.

Table 7. Web interface elements and descriptions (Continued)

Element	Description
Links	Use to access other functions, such as editing item records or logging out of the system. If an operator does not have permission to edit the record, the link will be disabled. • Click tag name or description to make changes to an existing record. The configuration page displays, which allows you to make changes.
Icons	Click the appropriate icon to copy, or delete a record. If an operator does not have permission to edit the record, the link will be disabled. The icons are: • Click **Copy** to make a duplicate of the existing record. The configuration page displays, which allows you to change the information in the existing record. This is useful when you need to create many records with similar information. • Click **Delete** to remove the record.

Browser Menu

Use the Facility Commander Browser menu shown in Figure 8 to select configuration and list pages.

Figure 8. Browser menu

Select a menu name, like System Administration, and the menu expands to reveal the browser pages. The menu is divided by tasks and function, such as:

- **Environment** to access the Window Filter and set operator preferences.
- **Device Management** to configure devices, create alarm instructions, event action mappings, and more.
- **Operator Administration** to add operator records, configure permissions, and contexts.
- **System Administration** to configure Facility Commander, Secure Perfect, and Picture Perfect servers, workstations, system parameters, and more.
- **System Diagnostics** to view diagnostics used for troubleshooting.

Configuration Page

The configuration page as shown in Figure 9 allows you to enter new configuration information or edit existing records in the database. The configuration page includes text boxes, drop-down lists, check boxes, and buttons.

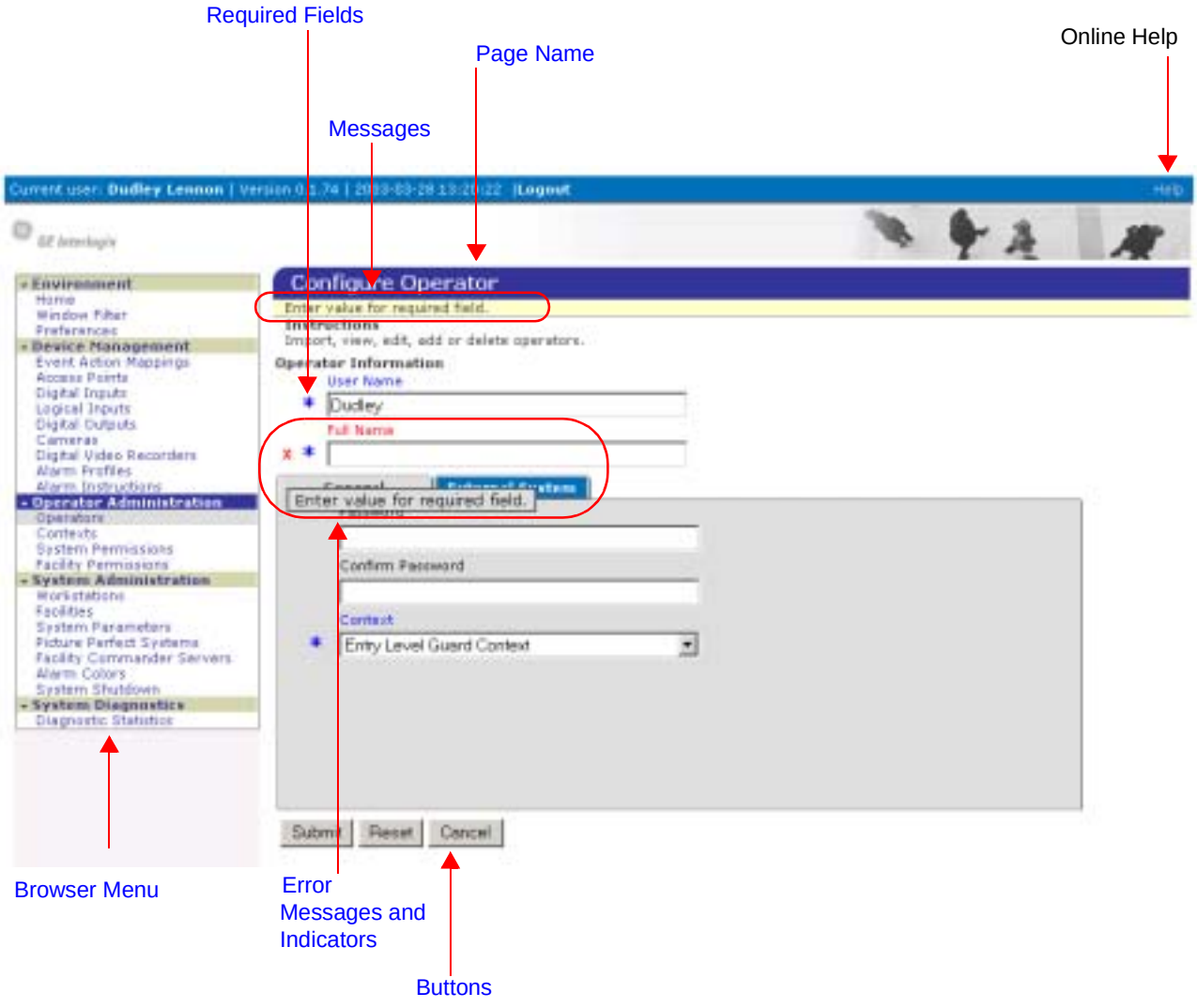

Figure 9. Browser Interface — Configuration Page

Table 8 lists and describes the elements of the configuration Web page.

Table 8. Web interface elements and descriptions

Element	Description
Required Fields	A blue asterisk (*) displays next to fields that require a data entry. If you do not enter the correct data in a required field, an error message displays. The field name title with the error changes to red, and a red “X” displays next to the field. Correct the entry and click **Submit**.
Page Name	Displays the name of the current page.
Messages	A message displays to confirm data was saved successfully for the newly created records.
Error Messages and Indicators	A message displays to confirm data was saved successfully for the newly created records. • An error message displays in red text with a number preceding the message to identify the error. Refer to Appendix C on page 435. • An information message displays in black text, such as “Login Successful”.
Browser Menu	Select any entry in the navigation pane to display the appropriate Browser page. Refer to *Browser Menu* on page 25 for more information.
Buttons	Click the appropriate button to submit, reset, or cancel a record. The buttons include: • Click **Add** to display a blank configuration page where you enter information. Required fields are indicated by an asterisk (*). • Click **Import** to import records from the Picture Perfect system. • Click **Synchronization** to synchronize device information between the selected Picture Perfect system and Facility Commander.

Managing Multiple Windows

This feature allows you to open multiple client applications and arrange the windows according to your needs. You can monitor alarm activities from different locations and view video from camera positions located anywhere at the same time.

When you first open multiple window instances of the same application, the windows display in a cascade fashion. However, once you move the windows to the position and adjust the window size, the window always opens to the same position and size allowing you to create your own personal workspace.

Client Application Title Bars

The Facility Commander client applications indicate a window number and other information in the title bar, such as a customized window title, path name, or access point and alarm type.

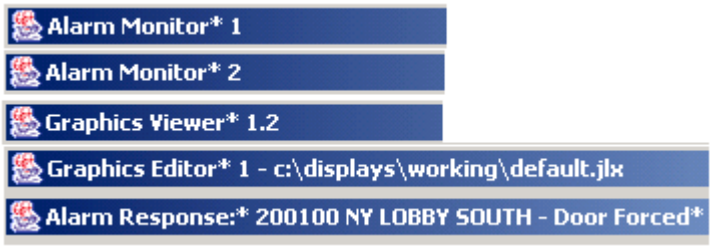

Figure 10. Title bars with window numbers, and other information

Figure 10 shows different title bars from several client applications windows. The information shown on the title bar depends on the application, such as:

- The Alarm Monitor and Event Monitor display a window number and, if configured to do so, a window title. Each time you open another Alarm Monitor or Event Monitor, another window number displays indicating the window sequence, such as 1, 2, 3, and so on. The custom window title displays only on the window where it was created.
- The Graphics Viewer displays the window number, file name, and a custom window title, if configured to do so.
- If you open the Graphics Viewer from an icon on the Alarm Monitor, the Graphics Viewer displays two window numbers, such as 1.1, 1.2, and 2.1, and so on. The first number matches the Alarm Monitor window and the second number indicates the window sequence.
- The Video Viewer displays the window number and custom window title, if configured to do so. An operator can open four different Video Viewers, position them, and create custom titles for each window. The next time these four Video Viewers are launched, the will return to the same position and display the custom title.
- The Graphics Editor displays the path name of the open file and window number using format 1, 2, and 3. The path name follows the window number.
- The Alarm Response window displays the access point (or device) tag name and the alarm type. An operator may have more than one alarm response window open at the same time.

Customizing Window Name and Contents

Use the **Window Filter** shown in Figure 11 to modify the current display of items displayed on the Alarm Monitor, Event Monitor, Video Viewer, Multi Viewer, and the Graphics Viewer.

This feature is used to limit the number of items that display in the navigation pane; allowing an operator to view specific records, such as those from New York and not from Boston or Chicago.

When an operator does not have permission to modify the items in the **Change Window Filter**, the items are disabled. The operator is able to view the items displayed in the window, but not able to make any selections.

➤ **To filter items from view in the navigation pane, follow these steps:**

1. From the **View** menu, select **Window Filter**. The Window Filter window in Figure 11 displays.

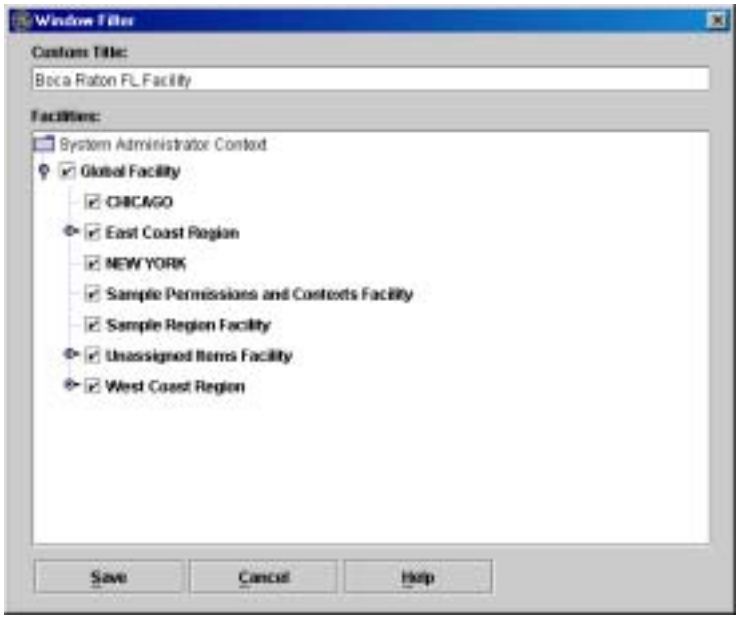

Figure 11. Window Filter window

2. Use the **Custom Title** field to identify a title to display on the Video Viewer title bar. Maximum number of characters is 256.

3. Select the check boxes to indicate the items you want to display in the navigation pane of the client application. A check mark indicates the item is selected.
   - Clear the check boxes to remove the items from view.
4. Click **Save**. The client application displays a window filter icon in the status bar indicating the list of items has changed.

Error Messages

Facility Commander displays error messages when the information being entered is incorrect or an option selected by an operator is not a valid action. The Facility Commander configuration pages shown in Figure 12 display the error message number, tabbed page, and fields in an error condition.

In the example below there are multiple errors, such as:

- [0049] Errors Occurred. Move mouse pointer over X's for details.
- The text on the Addresses and Facility tabs turns red to identify the tabbed pages with errors.
- A red asterisk displays next to the field name to identify the location of the error. The error could be caused by missing or invalid information.
- A tooltip displays the specific error message for the field in error condition.

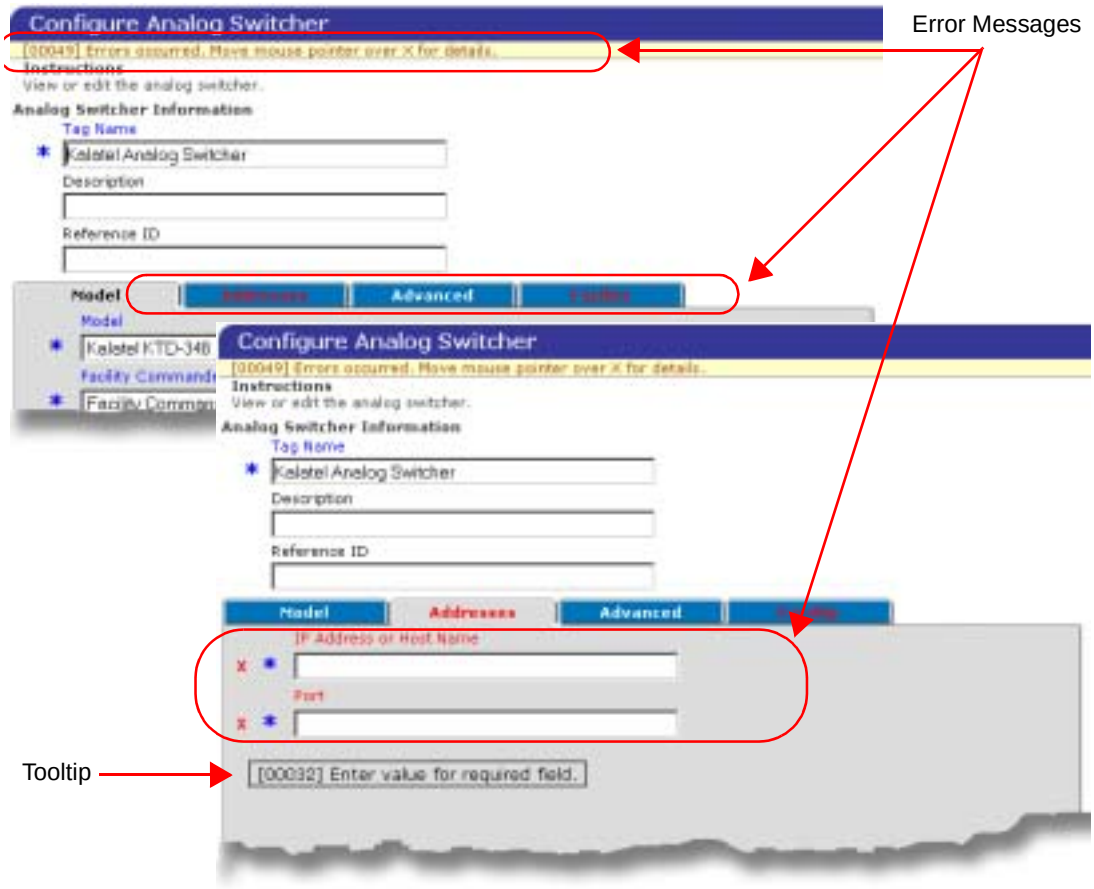

Figure 12. Configuration pages with error messages

Refer to Appendix C on page 435 for a complete list of error messages.

Navigating the Multi Viewer

The Multi Viewer window in Figure 13 is comprised of three separate viewing areas or panes. Each pane represents separate viewing areas, which allow multiple programs, such as the Video Viewer, the Graphics Viewer, Event Monitor, and the Alarm Monitor to display within a single window.

Refer to *Customizing the Multi Viewer* on page 32 for information about changing the programs that display within the Multi Viewer.

➤ **To display the Video Viewer, follow these steps:**

1. Select **Facility Commander Launcher**.
2. Select **Launch** and **Video Viewer**, or select the Video Viewer icon from the Editors toolbar. The Video Viewer window as shown in Figure 13 displays.

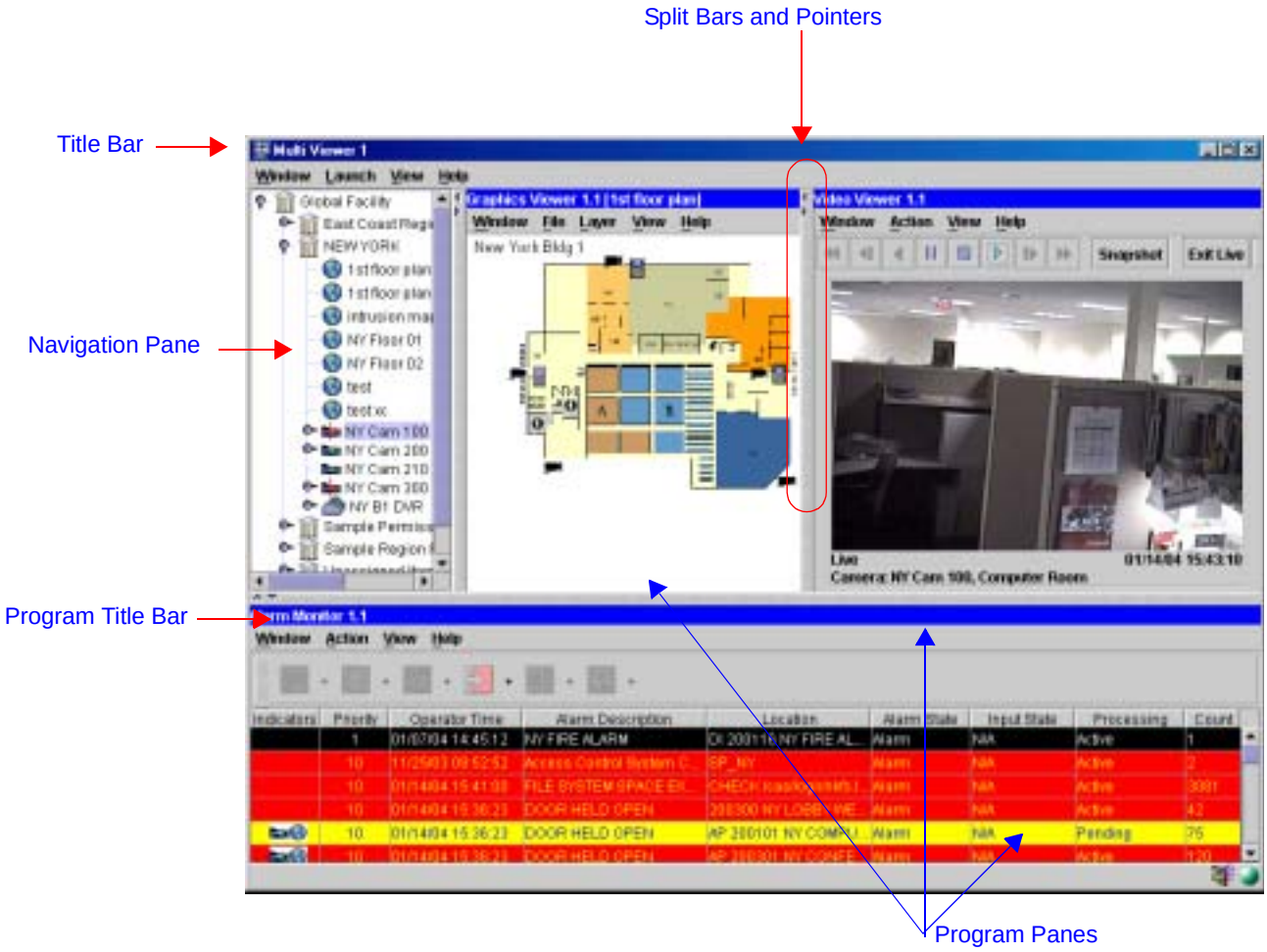

Figure 13. Multi Viewer window

Table 9 lists and describes the elements found in the Multi Viewer window

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Table 9. Multi Viewer elements and descriptions

Element	Description
Title Bar	Displays the title Multi Viewer and the window instance number, since you may open more than one occurrence of the Multi Viewer. Refer to *Managing Multiple Windows* on page 27 for more information.
Program Menu Bar	The menu bar displays the menu names specific to the active pane. Some menus contain similar commands such as **Open**, **Exit**, and **Help**. Each program menu bar is different for each program. For example, the Alarm Monitor menu allows you to select columns, customize the toolbar, and display the various commands required for alarms.
Navigation Pane	The navigation pane provides a hierarchal tree structure view of the links and group members. When you are using a client application, the navigation pane displays the facilities and items you have permission to access. Double-click on any item in the navigation pane to select the item.
Program Title Bar	Displays the client application name, such as Alarm Monitor with the window instance number. Refer to *Client Application Title Bars* on page 28 for more information.
Program Panes	Each pane represents separate viewing areas, which allow multiple programs such as the Video Viewer, the Graphics Viewer, and the Alarm Monitor to display within a single window. Columns within the pane can be resized by dragging either side of the column to its new position.
Split Bars and Pointers	Each pane is divided by a split bar with split pointers, which can be used to change the size of the window. Panes can be resized by moving the location of the splitter bars displayed between the panes or using the split pointers. Click the split pointer to move the window left or right of its current position.

Customizing the Multi Viewer

Facility Commander allows you to customize the Multi Viewer window by selecting which client application displays. The default applications are the Graphics Viewer, Video Viewer, and the Alarm Monitor. The Event Monitor can be displayed as well. Use any combination of these applications, or select three of the same application.

- To close a window, use the Window menu and select **Exit**.
- To open a window, right-click in the empty pane. Select the application name from the menu. Or, select **Launch** from the Multi Viewer window and choose the application.

Chapter 3. Configuring the System

This chapter describes how to configure the Facility Commander components, such as Facility Commander servers, and Picture Perfect or Secure Perfect systems, and more. A checklist is provided to guide system administrators in setting up Facility Commander.

In this chapter:

Checklist on page 34
Facility Commander Servers on page 37
Access Control Systems on page 44
Workstations on page 51
System Parameters on page 56
System Parameters on page 56
System Shutdown on page 59

Checklist

After the product installation is complete, there are additional steps to complete before you begin using Facility Commander. Some of the steps are optional and can be configured later.

To configure the system. follow these steps:

Table 10. Checklist

Step	REQ	HTML	Action
1.	✔	Login	Log in to Facility Commander. Use the user name *admin* and the password *admin*.
2.	✔	Server	Configure the Facility Commander server. Refer to *Facility Commander Servers* on page 37.
3.		Server	Define the e-mail settings, which includes the Simple Mail Transfer Protocol (SMTP) settings used for e-mail alerts. If you do not know the SMTP settings, contact the IT department for this information.
4.	✔	Access Control Systems	Configure the Picture Perfect and Secure Perfect systems in the network. Refer to *Access Control Systems* on page 44.
5.	✔		Reboot the Facility Commander server.
6.	✔	System Parameters	Review the system parameters and make changes, if necessary. Refer to *System Parameters* on page 56.
7.	✔	Operators	Import the Picture Perfect and Secure Perfect system administrator operator records and assign the records to Global Facility. You will import other Picture Perfect and Secure Perfect operator records later in the process. Refer to *Importing Operators* on page 72.
8.	✔	Operators	Assign System Administrator Context to the system administrator operator records. Refer to *Adding Operators* on page 67.
9.	✔	Login	Log out of Facility Commander and log in as the newly imported system administrator.
10.	✔	Operators	Change the “admin” operator password. Refer to *Adding Operators* on page 67.
11.	✔	Facilities	Import the Picture Perfect and Secure Perfect facilities and assign the records to Global Facilities. Refer to *Importing Facilities* on page 76.
12.		Facilities	Create Facility Commander facilities and define their relationship to the Picture Perfect and Secure Perfect facilities.

Table 10. Checklist (Continued)

Step	REQ	HTML	Action
13.	✔	System Permissions	Define the system permissions, such as viewing the Alarm Monitor. Refer to *System Permissions* on page 115.
14.	✔	Facility Permissions	Define the facility permissions, such as locking or unlocking doors, control cameras, and acknowledge alarms. Refer to *Facility Permissions* on page 109.
15.	✔	Contexts	Define the contexts, which defines the items an operator can view and what actions they can take. Refer to *Contexts* on page 120.
16.	✔	Operators	Import all other Picture Perfect and Secure Perfect operators and assign the records to Global Facility. Refer to *Importing Operators* on page 72.
17.	✔	Operators	Assign the appropriate context to each operator. Refer to *Adding Operators* on page 67.
18.	✔	Access Points	Import the access points and set the time zone. The access points are automatically assigned to the correct facility. Refer to *Importing Access Points* on page 82.
19.	✔	Digital Inputs	Import the digital inputs and set the time zone. The digital inputs are automatically assigned to the correct facility. Refer to *Importing Digital Inputs* on page 88.
20.	✔	Logical Inputs	Import the logical inputs and set the time zone. The logical inputs are automatically assigned to the correct facility. Refer to *Importing Logical Inputs* on page 94.
21.	✔	Digital Outputs	Import the digital outputs and set the time zone. The digital outputs are automatically assigned to the correct facility. Refer to *Importing Digital Outputs* on page 100.
22.	✔	Alarm Instructions	Create alarm instructions for Facility Commander-only alarms. Refer to *Creating Alarm Instructions* on page 196.
23.	✔	Alarm Profiles	Create alarm profiles for Facility Commander-only alarms. Refer to *Creating Alarm Profiles* on page 198.
24.	✔	Alarm Colors	Review the default alarm colors and make changes, as needed. Refer to *Setting Alarm Colors* on page 194.
25.	✔	Digital Video Recorders	Configure the Digital Video Recorders (DVRs). Refer to *Configuring Digital Video Recorders* on page 131.
26.	✔	Cameras	Configure the cameras. Refer to *Configuring Cameras* on page 138.

Table 10. Checklist (Continued)

Step	REQ	HTML	Action
27.	✔	Cameras	Configure the camera preset positions. *Configuring Camera Preset Positions* on page 143.
28.	✔	Digital Video Recorders	Link cameras to DVRs. Refer to *Linking Cameras to DVRs* on page 145.
29.	✔	CCTV Monitors	Configure the CCTV monitors. Refer to *Configuring CCTV Monitors* on page 154.
30.	✔	Analog Video Switchers	Configure the analog video switchers. Refer to *Configuring Analog Switchers* on page 147.
31.	✔	Inputs and Outputs	Configure the inputs and outputs to use CCTV Monitors. *Associating Analog Switcher Devices* on page 157.
32.	✔	Intercom Exchanges	Configure the intercom exchange. Refer to *Adding an Intercom Exchange* on page 230.
33.	✔	Intercom Stations	Configure the intercom stations. Refer to *Adding Intercom Stations* on page 237.
34.	✔	Intrusion Panels	Configure the intrusion panels. Refer to *Configuring Intrusion Panels* on page 250.
35.	✔	Intrusion Areas	Configure the intrusion areas. Refer to *Configure Intrusion Areas* on page 257.
36.	✔	Intrusion Inputs	Configure the intrusion inputs. Refer to *Configure Intrusion Input* on page 266.
37.	✔	Intrusion Outputs	Configure the intrusion outputs. Refer to *Configure Intrusion Outputs* on page 271.
38.	✔	Intrusion DGPs	Configure the intrusion DGPs. Refer to *Configuring DGPs* on page 262.
39.	✔	Intrusion Keypads	Configure the intrusion keypads. Refer to *Configure Intrusion Keypads* on page 275.
40.	✔	Graphic Displays	Configure graphic displays to change the file name to a tag name. Refer to *Editing Graphic Display Records* on page 328.
41.	✔	Event Action Mapping	Configure Event Action Mappings. Refer to *Event Action Mapping* on page 177.
42.	✔	Workstations	Configure the workstations and open the **Facility Commander Launcher** on each workstation to verify the settings. Browser-only workstations are not configured. Refer to *Logging In from a Workstation* on page 19.

Facility Commander Servers

The Servers page displays a list of the defined servers, which can include application server and Media Servers.

Use the SMTP settings when you plan on sending alarm alerts by e-mail to people in your network configuration. Contact your Information Technology (IT) department for the correct SMTP address.

Viewing Facility Commander Servers

Use the Servers page to view, add, edit, copy, or delete a Facility Commander Server record. You may need to edit this information if you make changes in the network configuration or if you want to change any of the other settings.

➤ **To view Facility Commander Server records, follow these steps:**

1. Select **System Administration**.
2. Select **Facility Commander Servers**. The Facility Commander Servers page as shown in Figure 14 displays.

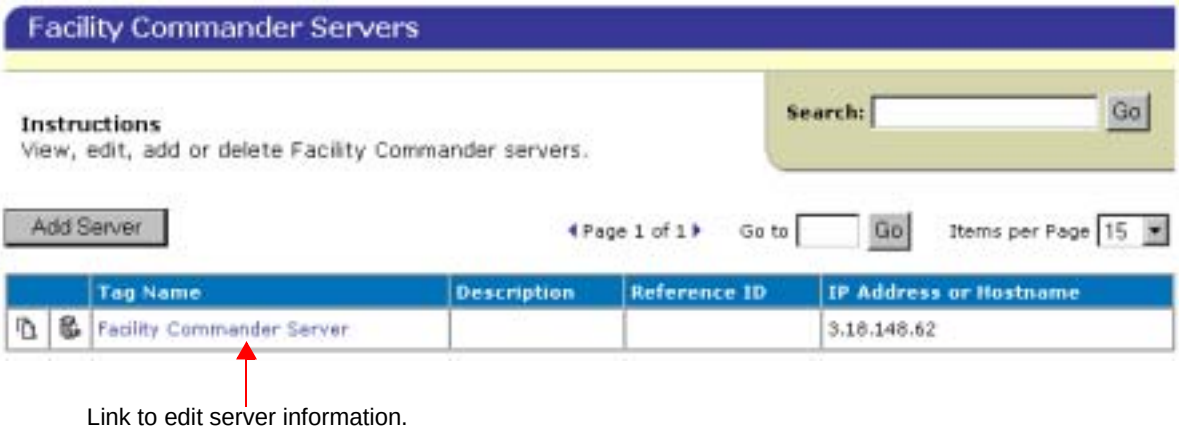


Figure 14. Facility Commander Servers page

Adding a Facility Commander Server

Click icon to see demo.

➤ **To add a Facility Commander server to the system, follow these steps:**

1. Select **System Administration**, and then **Facility Commander Server**. The Facility Commander Servers page displays.
2. Click **Add Server**. The Configure Facility Commander Server page as shown in Figure 15 displays.

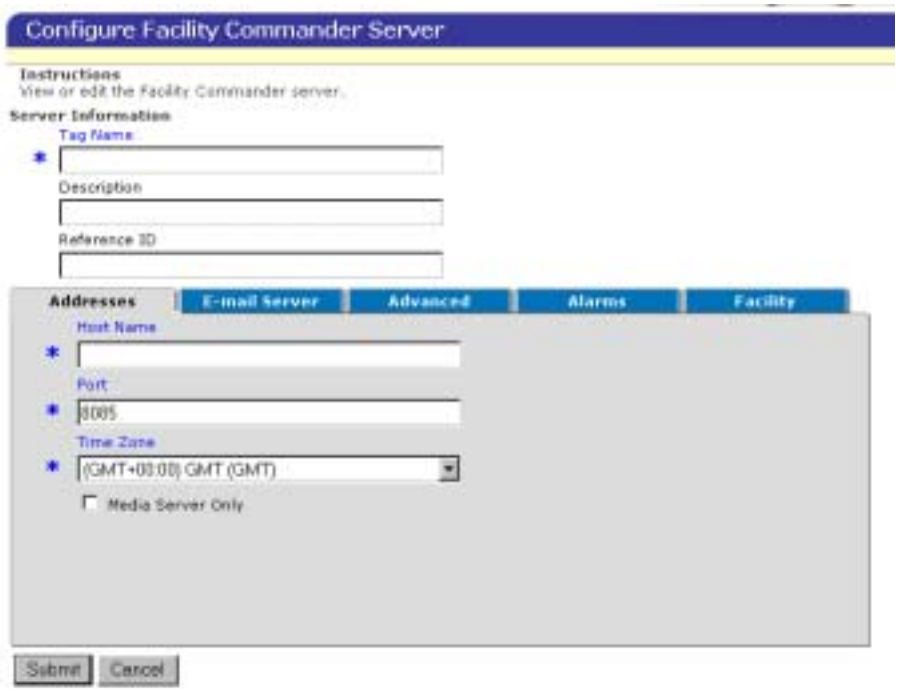


Figure 15. Configure Facility Commander Server page

3. Enter the information described in Table 11. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 11. Configure Facility Commander Server fields and description

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

Address Tab

Figure 16. Configure Facility Commander Server — Address tab

5. Select the **Address** tab as shown in Figure 16 and enter the information described in Table 12. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 12. Configure Facility Commander Server fields and description

Field Name	REQ	Description
Host Name	✔	Enter the host name of the Facility Commander server. The host name is case-sensitive.
Port	✔	Identify the TCP/IP port on which this server system communicates with the other systems in the network. The default value is 8085.
Time Zone	✔	Use the drop-down list to select the time zone for this server. This time zone displays on the Alarm Monitor and Event Monitor. The default time zone setting is GMT.
Media Server Only		Select this check box only if this server is a Media Server. The default value is the check box is not selected.

E-mail Server Tab

Figure 17. Configure Facility Commander Server — E-mail Server tab

6. Select the **E-mail Server** tab as shown in Figure 17 and enter the information described in Table 13. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 13. Configure Facility Commander Server fields and description

Field Name	REQ	Description
SMTP Enabled		Select the check box to enable the Simple Mail Transfer Protocol (SMTP) settings to send e-mail messages. The default value is the check box is not selected.
SMTP IP Address or Host Name		Enter the host name or IP address of the SMTP server. Contact the IT department for this information, if necessary. The host name is case-sensitive.
SMTP Port		Required, if the SMTP Enabled check box is cleared. The default value is 25.
SMTP User Name		Enter a valid user name. Contact the IT department for this information.
Password		Enter the password. Contact the IT department for this information.
Confirm Password		Enter the password again.

Advanced Tab

Figure 18. Configure Facility Commander Server — Advanced tab

7. Select the **Advanced** tab as shown in Figure 18 and enter the information described in Table 14. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 14. Configure Facility Commander Server fields and description

Field Name	REQ	Description
Minimum Thread Pool Size	✔	These values are used to control the number of concurrent activities. Enter the minimum value. The default value is 100.
Maximum Thread Pool Size	✔	These values are used to control the number of concurrent activities. Enter the maximum value. The default value is 200.

Alarms Tab

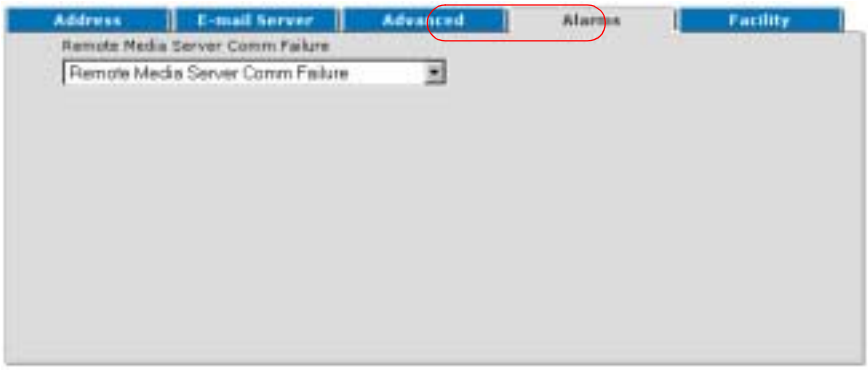


Figure 19. Configure Facility Commander Server — Alarms tab

8. Select the **Alarms** tab as shown in Figure 19 and enter the information described in Table 15. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 15. Configure Facility Commander Server fields and descriptions

Field Name	REQ	Description
Remote Media Server Comm Failure		Use the drop-down list to select the alarm that will activate when the system is unable to communicate with the Media Server. The items that appear in this list are defined in Alarm Profiles. Refer to *Creating Alarm Profiles* on page 198 for more information.

Facilities Tab

Figure 20. Configure Facility Commander Server — Facilities tab

9. Select the **Facilities** tab as shown in Figure 20 and enter the information described in Table 16. A check mark indicates a required field.

Table 16. Configure Facility Commander Server fields and descriptions

Field Name	REQ	Description
Assigned to		Displays the facility or facilities for this server. Items can belong to more than one facility.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Access Control Systems

Facility Commander communicates with both Picture Perfect and Secure Perfect access control systems.

The Access Control Systems list page displays the systems that communicate with Facility Commander. Each record includes a tag name and description.

Facility Commander supports these Picture Perfect 1.7 (or later) configurations:

- **Standalone** system is the typical configuration with one Picture Perfect server that manages client systems and microcontrollers.
- **Redundant** system configuration operates with two servers; one server acts as the primary and one server acts as a standby server.
- **Enterprise** system consists of a network host and multiple subhosts. Only subhosts can be configured to communicate with Facility Commander.

Facility Commander supports these Secure Perfect configurations:

- Secure Perfect 5.0 Enterprise with Service Pack 1 (or later)
- Secure Perfect 5.0 Professional with Service Pack 1 (or later)

Viewing Access Control Systems

Use the Access Control Systems list page to view, add, edit, copy, or delete a Picture Perfect or Secure Perfect server record.

➤ **To view the access control servers, follow these steps:**

1. Select **System Administration**.
2. Select **Access Control Systems**. The Access Control Systems page as shown in Figure 21 displays.

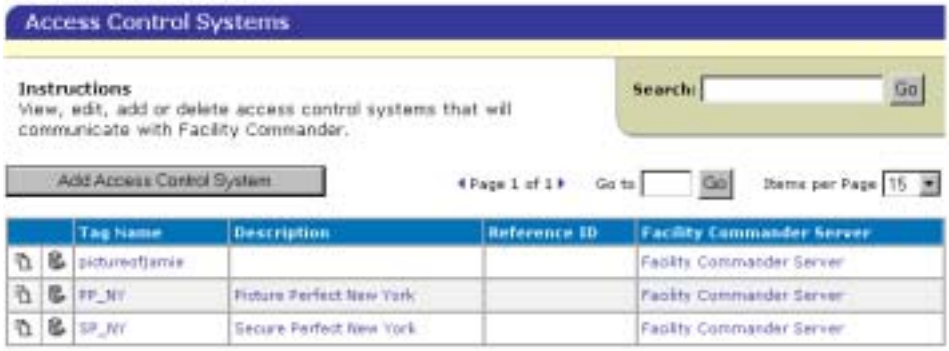


Figure 21. Access Control Systems page

Adding an Access Control System

➤ **To add a Picture Perfect or Secure Perfect system, follow these steps:**

1. Select **System Administration**, and then **Access Control Systems**. The Access Control Systems list page displays
2. Click **Add Access Control System**. The Configure Access Control System page as shown in Figure 22 displays.

Figure 22. Configure Access Control Systems page

3. Enter the information described in Table 17. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 17. Configure Access Control Systems fields and description

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

Address Tab

Figure 23. Configure Access Control System — Address tab

5. Select the **Address** tab as shown in Figure 23 and enter the information described in Table 18. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 18. Configure Access Control System fields and description

Field Name	REQ	Description
Host Name	✔	Enter the host name of the server. The host name is case-sensitive. Refer to *Verifying Computer Host Name* on page 402 if you do not know the system host name.
Access Control System Port	✔	Identify the TCP/IP port on which the access control (Picture Perfect or Secure Perfect) system communicates with Facility Commander. The default value is 8088.
Time Zone	✔	Use the drop-down list to select the time zone for this access control server. This time zone displays on the Alarm Monitor and Event Monitor. The default time zone setting is GMT.
Facility Commander Server	✔	Use the drop-down list to identify the server to communicate with the access control system.
Enabled		The check box to enable the access control system server is selected as the default value. If you do not want the access control system to communicate with Facility Commander, clear the check box to disable the server.

External System Tab

Figure 24. Configure Access Control System — External System tab

6. Select the **External System** tab as shown in Figure 24 and enter the information described in Table 19. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 19. Configure Access Control System fields and description

Field Name	REQ	Description
Model	✔	Use the drop-down list to select which access control system is being used with Facility Commander.
User Name	✔	Enter the Picture Perfect or Secure Perfect operator name used by Facility Commander to connect to the access control system.
Password		Enter the operator's password.
Confirm Password		Re-enter the password.

Advanced Tab

Figure 25. Configure Access Control System — Advanced tab

7. Select the **Advanced** tab as shown in Figure 25 and enter the information described in Table 20. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 20. Configure Access Control System fields and description

Field Name	REQ	Description
Ping Interval (seconds)	✔	This is the number of seconds, or ping interval, the Facility Commander server will ping the access control system. The default setting is five seconds.
Backup IP Address or Host Name		If this is a redundant Picture Perfect system, enter the IP address or host name of the backup machine. The host name is case-sensitive.
Enable Encryption to With Access Control System		Select this check box to encrypt communication between the access control system and Facility Commander.

Alarms Tab

Figure 26. Configure Access Control System — Alarms tab

8. Select the **Alarm** tab as shown in Figure 26 and enter the information described in Table 21. Continue to enter information on the tabbed pages.

Table 21. Configure access control System fields and description

Field Name	REQ	Description
Access System Comm Failure		Use the drop-down list to select the alarm that will activate when Facility Commander is unable to communicate with the access control system. The items that appear in this list are defined in Alarm Profiles. Refer to *Creating Alarm Profiles* on page 198 for more information.

Facility Tab

Figure 27. Configure Access Control — Facility Tab

9. Select the **Facility** tab as shown in Figure 32 and enter the information described in Table 22.

Table 22. Configure Access Control fields and descriptions

Field Name	REQ	Description
Assigned to		Displays the facility or facilities for this workstation. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Workstations

Use the Workstations to page to identify the computer systems in your network that can run the client applications, such as the Alarm Monitor. An operator will not be able to access any of the client applications if the workstation is not defined.

Configuring the Alarm Alert Window

Use Workstations to enable the Alarm Alert window on a particular workstation. The Alarm Alert window in Figure 28 displays on the workstation when an alarm event is generated.

Figure 28. Alarm Alert window

The Alarm Alert window shows the operator the number of active, unacknowledged, and highest priority alarms. Refer to *Alarm Alert* on page 203 for more information.

Launching the Video Viewer Automatically

In addition, you can configure Facility Commander workstation to automatically launch a Video Viewer when an alarm event occurs with associated video. Each time an alarm event occurs within the specified priority range, the Video Viewer launches and displays both live video and the recorded video clip of the event.

Intercom Stations

Use Workstations to associate an intercom master station with a workstation. (The intercom device should be physically located next to the workstation.) When an operator logs onto the system using the specified workstation, they are able to connect to another intercom station from the Alarm Monitor or Graphics Viewer.

If the workstation is not configured, operators are not able to connect to any intercom stations using Facility Commander; the connection must be dialed manually.

Viewing Defined Workstations

Use the Workstations list page to view, add, edit, copy, or delete a workstation record, Also use to edit the workstation record if you want to enable the Alarm Alert window.

➤ **To view workstation records, follow these steps:**

1. Select **System Administration**.
2. Select **Workstations**. The Workstations page as shown in Figure 29 displays.

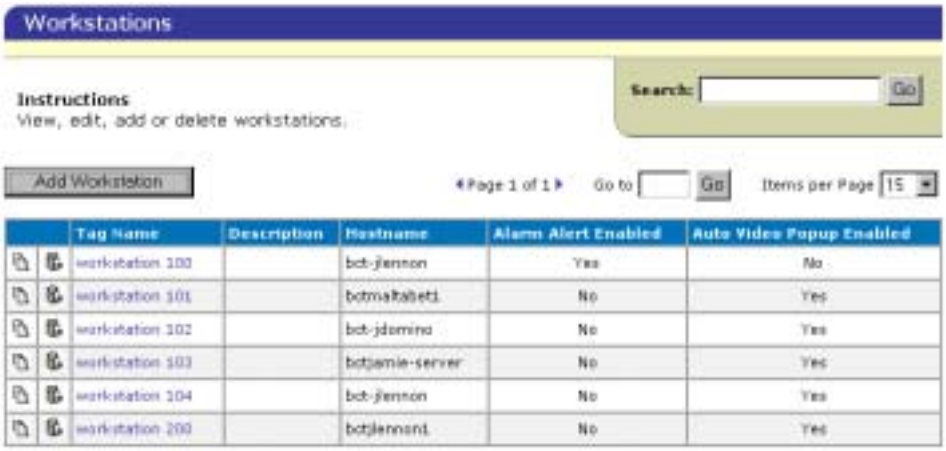


Figure 29. Workstations page

Adding a Workstation

Click icon to see demo.

➤ **To add a workstation, follow these steps:**

1. Select **System Administration**, and then **Workstations**. The Workstations page displays.
2. Click **Add Workstation**. The Define Workstation page as shown in Figure 30 displays.

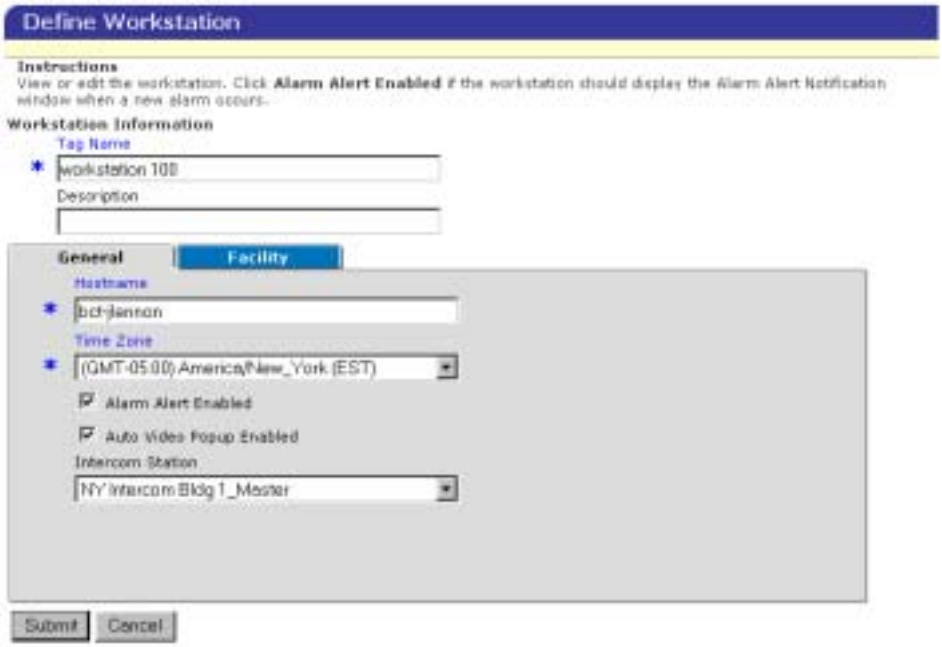


Figure 30. Define Workstation page

3. Enter the information described in Table 23. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 23. Define Workstation fields and description

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.

General Tab

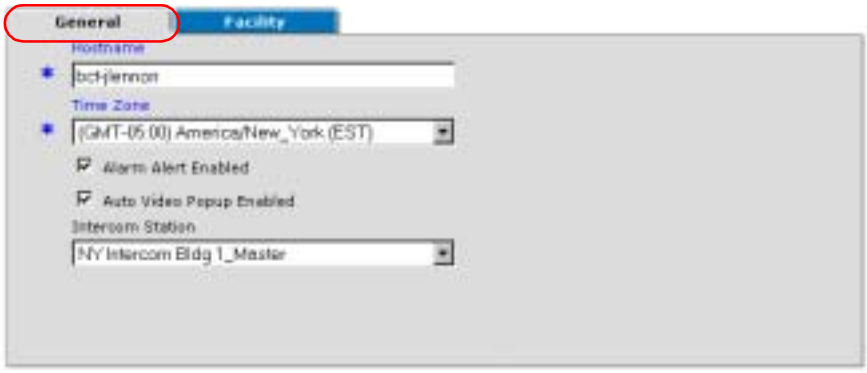


Figure 31. Workstations — General tab

5. Select the General tab as shown in Figure 31 and enter the information described in Table 24. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 24. Define Workstations fields and descriptions

Field Name	REQ	Description
Host Name	✔	Enter the workstation host name. The host name is case-sensitive.
Time Zone	✔	Use the drop-down list to select the time zone for this server. This time zone displays on the Alarm Monitor and Event Monitor. The default time zone setting is GMT.
Alarm Alert Enabled		• Select this check box to enable the Alarm Alert window to display on this workstation when an alarm occurs. • Clear the check box if you do not want the Alarm Alert window to display.
Auto Video Popup Enabled		• Select this check box to enable the Video Viewer to automatically display on this workstation when an alarm occurs. • Clear the check box if you do not want the Video Viewer to launch automatically.
Intercom Station		Use the drop-down list to select the intercom station associated with this workstation.

Facilities Tab

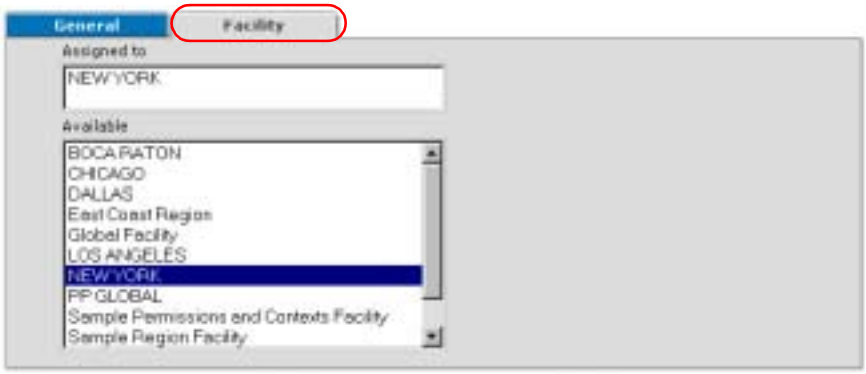


Figure 32. Workstations — Facility tab

6. Select the Facility tab as shown in Figure 32 and enter the information described in Table 25.

Table 25. Define Workstations fields and descriptions

Field Name	REQ	Description
Assigned to	✔	Displays the facility or facilities for this workstation. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

System Parameters

The Configure System Parameters page displays the system locale, operator idle timeout parameter, alarm priority range to launch a Video Viewer, alarm priority range to require an alarm response, select video preplay time, and an option to select encryption with Facility Commander client applications.

The operator idle timeout represents the length of time that a workstation is idle before Facility Commander forces a log off.

Launch Video Viewer by Alarm Priority

Facility Commander automatically launches a Video Viewer when an alarm event occurs with associated video, when configured to do so. Each time an alarm event occurs within the specified priority range, the Video Viewer launches and displays both live video and the recorded video clip of the event.

Any time an alarm event occurs within a specified priority range causes the Video Viewer to launch displaying live and recorded video for the alarm event. If a range is not specified, the Video Viewer does not launch automatically.

Require an Alarm Response

The Alarm Monitor window allows operators to respond to incoming alarms by using the Alarm Response window. Using the Alarm Response window, an operator can acknowledge, remove, or purge an alarm from the Alarm Monitor.

Any time an alarm event occurs within a specified priority range, an operator response will be required. If a priority range is not specified, alarms can be acknowledged without entering a response in the Alarm Response window.

Configure Video Pre-Play Time

This feature is useful to see activities that occurred just prior to the alarm event. You can specify the number of seconds to start playing a video clip before the actual clip time. The range is from 0 to 60 seconds.

The “number of seconds” is subtracted from the actual video start time, and playback occurs the “number of seconds” earlier than the actual alarm event.

As an example, an event action mapping definition for a forced door alarm includes video tagging. The Video Pre-Play time is set for 15 seconds. If the alarm event occurs at 10:21:30 AM, you can view the recorded video starting at 10:21:15 AM, fifteen seconds before the alarm event occurred.

Configuring System Parameters

Click icon to see demo.

➤ **To make changes, follow these steps:**

1. Select **System Administration**, and then **System Parameters**. The Configure System Parameters page shown in Figure 33 displays.

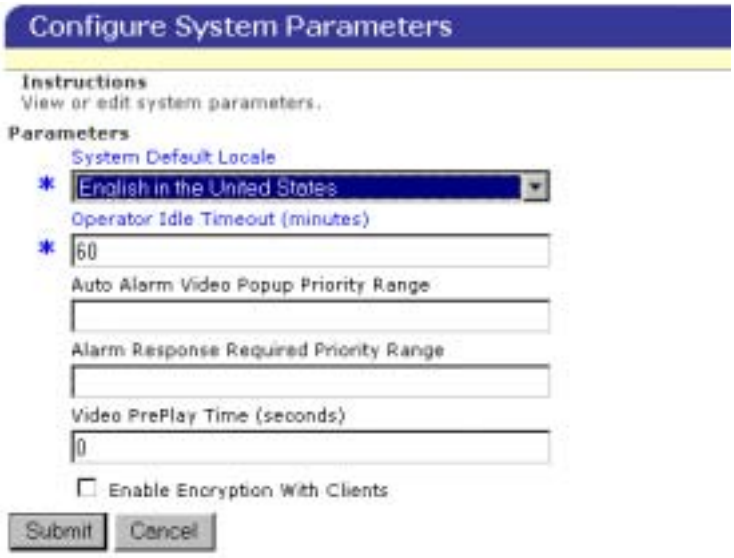


Figure 33. Configure System Parameters page

2. Enter the information described in Table 26 to make changes. A check mark indicates a required field. Continue to enter information on the tabbed pages.
3. Click **Submit** to save the record.

Table 26. Configure System Parameters fields and description

Field Name	REQ	Description
System Default Locale	✔	Use the drop-down list to select the language for the local system when operator locale information is not available.
Operator Idle Timeout (minutes)	✔	Enter the number of minutes for a session to remain idle. When the session times out, the operator will be asked to log in again. This applies to the browser and client applications. Maximum amount of time is 480 minutes.

Table 26. Configure System Parameters fields and description (Continued)

Field Name	REQ	Description
Auto Alarm Video Popup Priority Range		Enter one or more priority ranges from 1-to-500. Leave this field blank to disable this option. Examples are: **`1-10;300;400-500 or 1-500`**. Refer to *Launching the Video Viewer Automatically* on page 51 for more information.
Alarm Response Required Priority Range		Enter one or more priority ranges from 1-to-500. Leave this field blank to disable this option. Examples are: **`1-10;300;400-500 or 1-500`**. Any time an alarm event occurs within a specified priority range, an operator response is required. Refer to *Require an Alarm Response* on page 56 for more information.
Video PrePlay Time (seconds)		Enter the number of seconds to start playing a video clip before the actual clip time. Refer to *Configure Video Pre-Play Time* on page 56 for more information.
Enable Encryption With Clients		Select this check box to encrypt communication between Facility Commander and the client applications.

System Shutdown

Use System Shutdown to initiate a shutdown of the system. All active client workstations are notified of the pending shutdown with a pop-up window. Operators using a Browser page are notified of the shutdown when the operator takes an action that causes the page to change, such as clicking **Submit** or requesting another page.

Shutdown Notification to Client Applications

When a shutdown request is issued, all client workstations are immediately notified. A window with a progress bar displays on each workstation, with this message: **System shutdown is in progress. Application will be terminated.** When the time expires, all client workstations are immediately logged off.

Shutdown Notification to Browser Configuration Clients

The browser workstations behave differently because the browser pages do not refresh dynamically. The page does not refresh until the operator selects another page or clicks **Submit** on a page.

When the operator takes either of these actions, the message bar displays the message: **System shutdown in progress**. When the time expires, and the operator again selects another page, the Login page is displayed with this message: **System has been shutdown**.

After a shutdown, Facility Commander must be rebooted. The Facility Commander system is automatically started as part of the reboot process.

Shutting Down the System

➤ **To begin a system shutdown, follow these steps:**

1. Select **System Administration,** and then **System Shutdown**. The Shutdown System page as shown in Figure 34 displays.

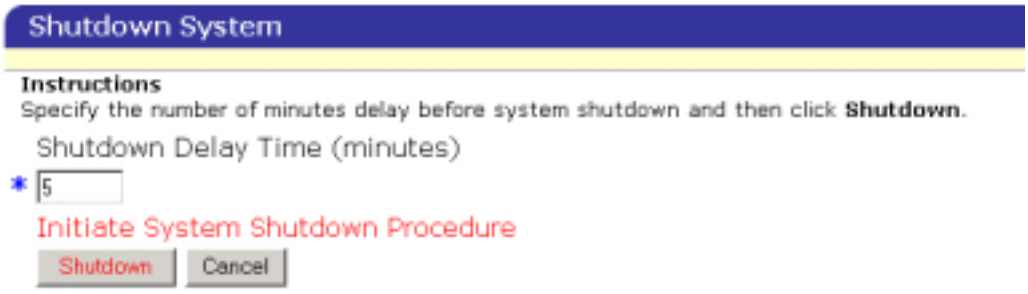


Figure 34. Shutdown System page

2. Enter the number of minutes to delay before the system performs the shutdown. The default setting is five minutes.
3. Click **Shutdown**.

Chapter 4. Importing Records

This chapter describes the how Facility Commander uses existing Picture Perfect and Secure Perfect records. Imported devices can be assigned a time zone and used on graphic displays to issue commands, such as locking and unlocking doors.

In this chapter:

Overview on page 62
Operator Records on page 65
Facilities on page 74
Window Filter on page 80
Access Points on page 81
Digital Inputs and Outputs on page 87

Overview

Importing Picture Perfect and Secure Perfect records allows the system administrator to identify which records to integrate with Facility Commander. Before records are added to the Facility Commander database, follow these steps:

✔	Create an operator account for the Facility Commander administrator and remove the default operator account. Refer to *Adding Operators* on page 67 for instructions.
✔	Import facilities from Picture Perfect. When you import facilities before importing any other records, future imported records are assigned to the correct facility.
✔	Import facilities from Secure Perfect. When you import facilities before importing any other records, future imported records are assigned to the correct facility.

To prevent creating duplicate records, there are two instances when you cannot import an existing record, which are:

- When the record is added manually to Facility Commander using the Web browser interface.
- When the record has already been imported into Facility Commander, the same record cannot be imported a second time.

After a record is deleted from the Facility Commander database, the record is immediately available to import again.

Tag Names, Descriptions, and Record IDs

Facility Commander uses tag names, descriptions, and reference IDs to identify items in the database.

- **Tag names** are short text labels used to identify items in the database. The names must be unique and will be used system-wide to identify this item. Use standard ASCII characters to ensure the tag name is viewable in a Web browser, regardless of the language fonts installed on Facility Commander.
- **Descriptions** are longer text labels used to describe the records in more detail.
- **Reference IDs** are used to associate a device to a blue print or wiring diagram. Different items in the system can have the same reference ID.

Time Zones

When importing records from a Picture Perfect or Secure Perfect system, you can assign each one to a time zone representing its location. Operators viewing alarm activity in multiple locations can see alarm activity in the configured time zone.

The Alarm Monitor and Event Monitor can be configured to display up to four columns of time zones, which are:

- **GMT** indicates Greenwich Mean Time.
- **Operator** indicates the location of the operator and the default setting.
- **Server** indicates location of the server.
- **Device** indicates location of the device associated with the event.

The format is month, day, year, hour, minute, and seconds (mm/dd/yy hh:mm:ss). For example: 12/10/02 16:28:04. The date format may change depending on the operator's locale.

Synchronize Records

Sometimes an operator must change the record description of a door, input, input group, or output. Facility Commander provides the ability to synchronize descriptions so that the operator does not have to re-enter the new description in Facility Commander. For any device page, click **Synchronize** results in displaying a list of devices whose descriptions are different from those of existing imported records in Facility Commander.

If an operator changes the facility of a record, the facility must be changed manually on Facility Commander. Because facilities in Facility Commander can have more complex relationships, it is not possible for the system to make the necessary changes automatically.

Facility Commander synchronizes the device information between the selected Picture Perfect or Secure Perfect system and Facility Commander. For more information, refer to *Synchronization* on page 193.

Terminology

Table 27 lists and describes the Picture Perfect item names, the corresponding Facility Commander names, and description.

Table 28 on page 64 lists and describes the Secure Perfect item names, the corresponding Facility Commander names, and description.

Picture Perfect Terms

Table 27. Picture Perfect and Facility Commander terms

Picture Perfect	Description	Facility Commander
Doors	Door + Door Input Group for Door Forced, Door Held, and Badge Alarms. Prepend AP to the Picture Perfect description.	**Access Points**
Input	Input (Physical Inputs that have a one-to-one relationship with their Input Group.) Prepend DI to the Picture Perfect description.	**Digital Input**

Table 27. Picture Perfect and Facility Commander terms

Picture Perfect	Description	Facility Commander
Input Group	Multiple DIs tied to a single Input Group, or Logical (software generated) Input Group, or Communications Failure, such as Micro Comm Fail or Reader Comm Fail. Prepend LI to the Picture Perfect description.	**Logical Input**
Output	Output (physical) Prepend DO to the Picture Perfect description.	**Digital Output**

Secure Perfect Terms

Table 28. Picture Perfect and Facility Commander terms

Secure Perfect	Description	Facility Commander
Readers	Reader for Door Forced, Door Held, and Badge Alarms. Prepend AP to the Secure Perfect description.	**Access Points**
Alarms (Physical)	Physical Inputs. Prepend DI to the Secure Perfect description.	**Digital Input**
Alarms (Logical)	Communications Failure, such as Micro Comm Fail. Prepend LI to the Secure Perfect description.	**Logical Input**
Output	Output (physical) Prepend DO to the Secure Perfect description.	**Digital Output**

Operator Records

Facility Commander recognizes two types of operator records — external operators and local operators.

- External operators defined in the Picture Perfect or Secure Perfect system are imported into Facility Commander.
- Local operators are defined only in the Facility Commander system and not in the Picture Perfect or Secure Perfect system.

To log in to Facility Commander, operators must be defined in Facility Commander as well. Operators can be added manually or imported from the Picture Perfect or Secure Perfect system. Refer to *Importing Operators* on page 72 for instructions.

Facility Commander provides a system administrator account called “admin”. Change the password for this account to prevent unauthorized persons from accessing the system. In the event the Picture Perfect or Secure Perfect system is offline, this account will allow access to Facility Commander.

The default system account identifies a local operator only when there are no other operators defined in the system. The default account allows you to add local operators or import external operators and begin to configure other parts of the system.

Operator Passwords

Operator passwords are authenticated and stored on the system where they are created.

- Local operator passwords are stored and authenticated on Facility Commander;
- External operator passwords are stored and authenticated on the Picture Perfect or Secure Perfect system.

Operator Preferences

A system administrator can identify operator preferences, such as setting the language for displays when an operator logs in and the number of items to display on the browser list page.

Refer to *Changing Operator Preferences* on page 73 for more information.

Viewing Facility Commander Operators

Use the Operators page to view, import, copy, add, and delete records.

➤ **To view Facility Commander operators, follow these steps:**

1. Select **Operator Administration**.
2. Select **Operators**. The Operators page as shown in Figure 35 displays.

Figure 35. Operators page

Adding Operators

➤ **To add a Facility Commander operator to the system, follow these steps:**

1. Select **Operator Administration**, and then **Operators**. The Operators list page displays.
2. Click **Add Operator**. The Configure Operator page as shown in Figure 36 displays.

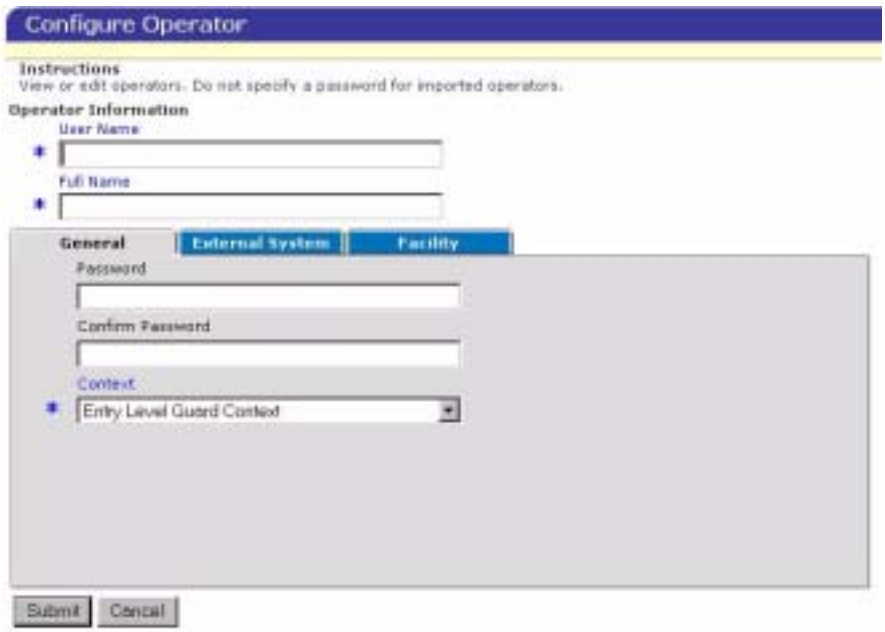


Figure 36. Configure Operator page

3. Enter the information described in Table 29. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 29. Configure Operator fields and descriptions

Field Name	REQ	Description
User Name	✔	Enter the operator's name using the appropriate naming convention. This may be the first initial and last name. For example: fsmith Use 1-to-50 characters. Spaces are not valid.
Full Name	✔	Enter the first name and last name of the person who is assigned to the user name. For example: Fred Smith Use 1-to-50 characters. Spaces are valid.

General Tab

Figure 37. Configure Operator — General tab

5. Select the **General** tab as shown in Figure 37 and enter the information described in Table 30. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 30. Configure Operator fields and descriptions

Field Name	REQ	Description
Password		The Password field is encrypted and displays asterisks. • If you have selected the **External System** check box (on **External System** tab), do not enter a password. The Picture Perfect or Secure Perfect system will authenticate the operator's account using its own password information. • If this user does not have an existing account on the Picture Perfect or Secure Perfect system, enter a password to access Facility Commander, which authenticates the operator's account using this password information.
Confirm Password		The new password must be entered again exactly as it was entered in the Password field. The Confirm Password field is encrypted and is displayed as asterisks.
Context	✔	Use the drop-down list to select the appropriate context for this operator. Refer to *Contexts* on page 120 for more information.

External System Tab

Figure 38. Configure Operator — External System tab

6. Select the **External System** tab as shown in Figure 38 and enter the information described in Table 31.

Table 31. Configure Operator fields and descriptions

Field Name	REQ	Description
External System		Select this check box if this operator has an account on the Picture Perfect or Secure Perfect system. - When the check box is selected, the operator has access to external Picture Perfect or Secure Perfect systems. - When the check box is not selected, the operator does not have access to external Picture Perfect or Secure Perfect systems.

Facility Tab

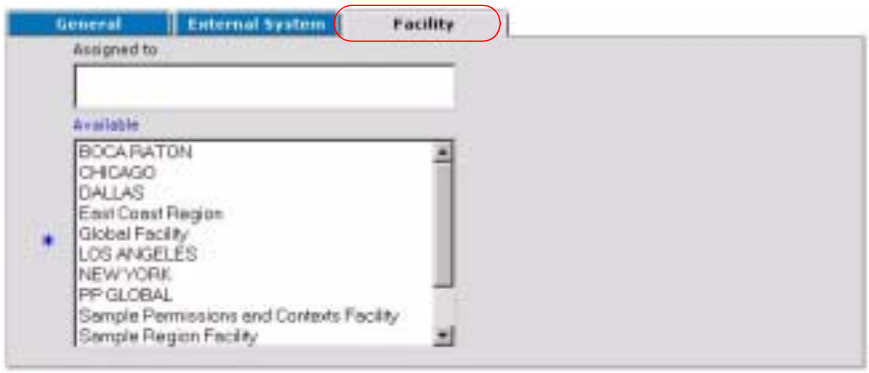


Figure 39. Configure Operator — Facility tab

7. Select the **Facility** tab as shown in Figure 39 and enter the information described in Table 32.

Table 32. Configure Operator fields and descriptions

Field Name	REQ	Description
Assigned To		Identifies the facility where the operator is assigned. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Removing Default Account

Do not remove the default system account before creating a Facility Commander operator record for the system administrator.

➤ **To remove the default operator account from the system, follow these steps:**

1. Select **Operator Administration**.
2. Select **Operators**. The Operators list page as shown in Figure 35 displays.
3. Click the **Delete** icon next to the Default System Account item. The Confirm Deletion window with the operator's full name displays.
4. Click **Yes** to delete the record. The default account is removed from the system.

Importing Operators

Importing operators allows the system administrator to identify which operators can log in to Facility Commander.

➤ **To import existing operator records, follow these steps:**

1. Select **Operator Administration**, and then select **Operators**. The Operators list page displays.
2. Use the **Server** drop-down list to select the Picture Perfect or Secure Perfect server with the records you want to import to Facility Commander.
3. Click **Import**. The Import page as shown in Figure 40 displays.

Figure 40. Import page

4. Use the Facility drop-down list to select a facility for the imported operators. Refer to *Facilities* on page 74 for more information.
5. Select the operator records you want to import into Facility Commander. You can select one, several, or all the operators appearing in the list.
   - To import several operators, select the first operator and press the **Ctrl** key while selecting the other operators. The selected operator names are highlighted.
   - To import all the operators, select the first operator in the list, press the **Shift** key and select the last operator in the list. All the operator names are highlighted.
6. Click **Import**. The list page displays the operator information from the imported records.

Changing Operator Preferences

Use Configure Operator Preferences to set the language for displays and change the number of items that display on a Facility Commander list page.

1. Select **System Administration**, and then **Operators**. The Operators list page displays.
2. Click **Preferences** in the Preference column for the operator you want to change their default settings. The Set Operator Preferences page as shown in Figure 41 displays.

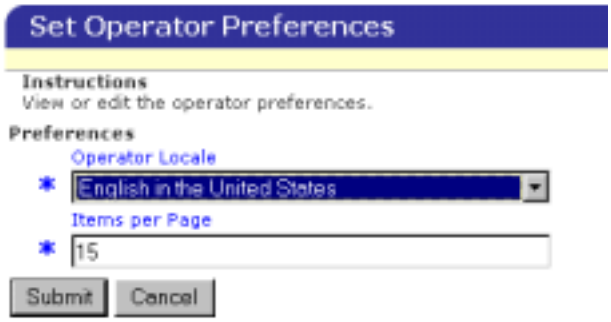


Figure 41. Set Operator Preferences

3. Use the **Operator Locale** drop-down list to select the language for the workstation.
4. Enter the number of items to display at one time on the Facility Commander list pages in the **Items Per Page** field. This becomes the operator's default setting. The number of items can be changed anytime on the list page.
5. Click **Submit** to save the record.

Facilities

The Facility Commander facility feature is similar to Picture Perfect or Secure Perfect, but offers even more flexibility. Facilities are not limited to physical items or locations, but now include logical groupings based on operational strategy.

The facilities feature partitions the Facility Commander database into logical segments, or groupings. As a result of partitioning the database, operators assigned to a specific facility might be only permitted to view and control the items associated with only that facility, and not others.

When creating facilities in Facility Commander, consider:

- A facility can be a member of only one other facility at a given time, which means a facility can only have one parent.
- All other items can be a member of any number of facilities at any given time, which means they can have more than one parent facility.

Items include all the objects that someone can view, control, or modify, such as access points, DVRs, or alarm colors, and the Facility Commander system itself.

Facility Commander provides pre-defined and sample facility definitions and context to use when creating new facilities. The definitions include:

- **Global Facility** is the top level facility and contains all the other facilities and their associated items.
- **Sample Profiles and Context Facility** is where sample contexts, system permissions, and facility permissions are located. Use these to create context and permissions tailored to meet your organization's needs.
- **Sample Region Facility** is only referenced by the sample contexts.

Refer to the following sections for more information:

- *Viewing Facilities* on page 75
- *Importing Facilities* on page 76
- *Creating a Facility* on page 77

Viewing Facilities

Use the Facilities page to view, import, add, edit, copy, or and delete a facility records.

➤ **To view the Facilities list page, follow these steps:**

1. Select **System Administration**.
2. Select **Facilities**. The Facilities page as shown in Figure 42 displays.

Figure 42. Facilities page

Importing Facilities

Click icon to see demo.

Select the access control facilities that you want to import. The Picture Perfect Global Facility is renamed PPGLOBAL in Facility Commander. The Global Facility in Facility Commander contains all other facilities.

➤ **To import facilities, follow these steps:**

1. Select **System Administration**, and then select **Facilities**. The Facilities list page displays.
2. Use the **Server** drop-down list to select the Picture Perfect or Secure Perfect server with the facilities records you want to import to Facility Commander.
3. Click **Import**. The Import page as shown in Figure 43 displays.

Figure 43. Import page

4. Select the destination facility where the imported facilities will be assigned. You can select one, several, or all the facilities in the list.
   - To import several facilities, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted.
   - To import all the facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted.
5. Click **Import**. The list page displays the imported facilities from the Picture Perfect or Secure Perfect servers.

Creating a Facility

Click icon to see demo.

➤ **To add items or operators to a facility, follow these steps:**

1. Select **System Administration**, and then select **Facilities**. The Facilities list page displays.
2. Click **Add Facility**. The Configure Facility page as shown in Figure 44 displays.

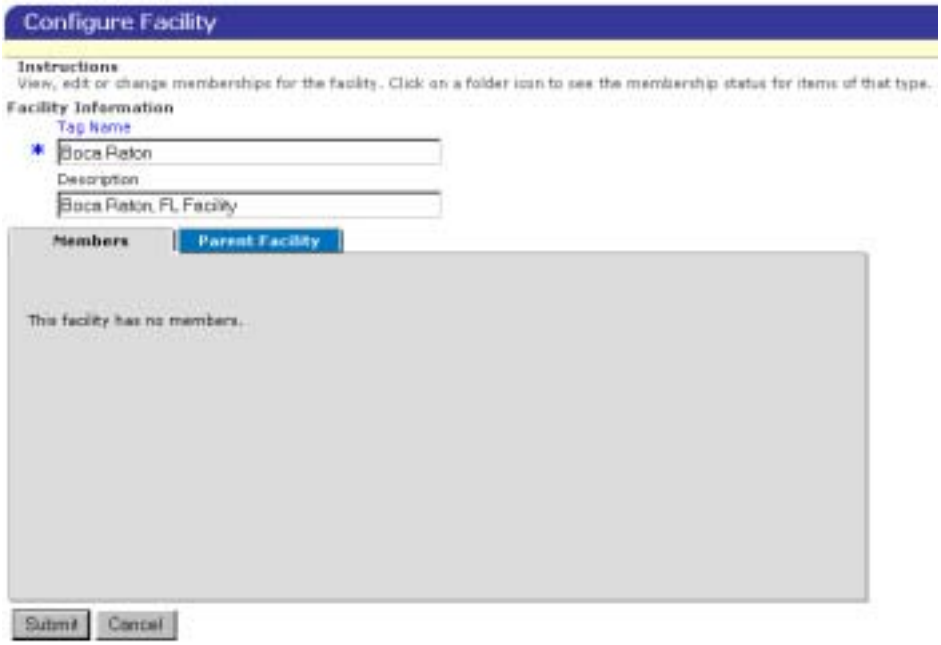


Figure 44. Configure Facility — Add New Facility

3. Enter the information described in Table 33. A check mark indicates a required field.
   - If this is a new record, this message displays: **This facility has no members**. Continue to enter information on the tabbed pages.
   - If this is not a new record, the Members tab as shown in Figure 47 on page 80 displays the items assigned to the facility
4. Click **Submit** to save the record.

Table 33. Configure Facility fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description.

Members Tab

Figure 45. Configure Facility — Members tab

5. Select the **Member** tab as shown in Figure 45. The Members tab lists all the items assigned to this facility.
   - Expand a folder to display the associated items, listed by their tag name.
   - Select an item to view the configuration page. Use the browser's back arrow to return to this page.

Parent Facility Tab

Figure 46. Configure Facilities — Parent Facility tab

6. Select the **Parent Facility** tab as shown in Figure 46 and enter the information described in Figure 34. A check mark indicates a required field.

Table 34. Configure Facility fields and descriptions

Field Name	REQ	Description
Assigned to		The field is blank when a new facility is being added and has not yet been assigned.
Available	✔	Displays a list of facilities. Select a parent facility where this facility should be assigned.

Window Filter

Use the Window Filter page in Figure 47 to limit the number of items in the client application navigation pane or drop-down lists. This is helpful when you are working in a large organization and you want to isolate one facility to perform troubleshooting activities.

Figure 47. Window Filter page

Changing Contents of View

Limit your view of items in Facility Commander by selecting only the facilities you want to view and filtering the remainder from view.

➤ **To change the items in your view, follow these steps:**

1. Select **Environment**, and then **Window Filter**. The **Window Filter** page as shown in Figure 47 displays.
2. Select the check boxes to indicate the facilities whose items you want to view. The default setting is all check boxes are selected. A check mark indicates the facility is selected and operators are able to view data from the facility.
   - Clear the check boxes to remove the facility from your view. No check mark indicates operators will not be able to view data from the facility.
3. Click **Submit** to save the record.

Access Points

Facility Commander imports door and reader records from existing Picture Perfect or Secure Perfect systems and creates access point records. In Facility Commander, an access point is made up of:

- Reader
- Door Contact
- Request to Exit (REX)
- Strike

Use the Picture Perfect or Secure Perfect system to configure the devices used by an access point. Use Facility Commander to configure the access points properties not defined in the Picture Perfect or Secure Perfect systems, such as associated site maps and time zones.

Refer to the following sections for more information:

- *Importing Access Points* on page 82
- *Editing Access Points* on page 83

Viewing Imported Access Points

Use the **Access Points** page to view, import, copy, delete, and synchronize records from Picture Perfect or Secure Perfect.

➤ **To view access points, follow these steps:**

1. Select **Device Management**.
2. Select **Access Points**. The Access Points list page as shown in Figure 48 displays.

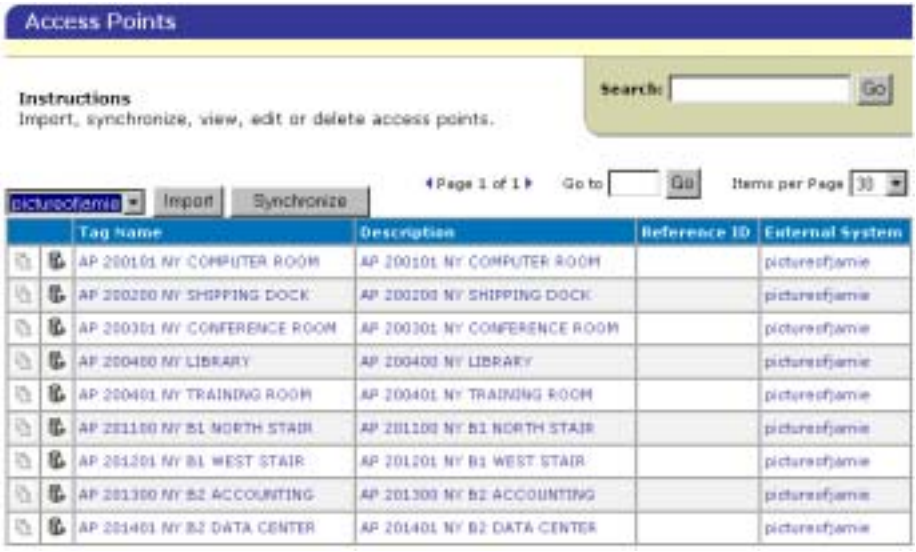


Figure 48. Access Points page

Importing Access Points

Click icon to see demo.

➤ **To import access points, follow these steps:**

1. Select **Device Management**.
2. Select **Access Points**. The Access Points list page as shown in Figure 48 on page 81 displays.
3. Use the **Server** drop-down list to select the Picture Perfect or Secure Perfect server with the records you want to import.
4. Click **Import**. The Import page as shown in Figure 49 displays.

Figure 49. Import page

5. Use the **Time Zone** drop-down list to select the time zone where this access point is located.
6. Select the access points you want to import. Use the **Shift** key to select all the records or the **Ctrl** key to make multiple selections from the list.
7. Click **Import.** The Access Points list page displays the imported items from Picture Perfect or Secure Perfect.

Editing Access Points

➤ **To make changes to an access point, follow these steps:**

1. Select **Device Management**, and then **Access Points**. The Access Points list page displays.
2. Locate the access point you want to edit and select the link. The Configure Access Point page as shown in Figure 50 displays.

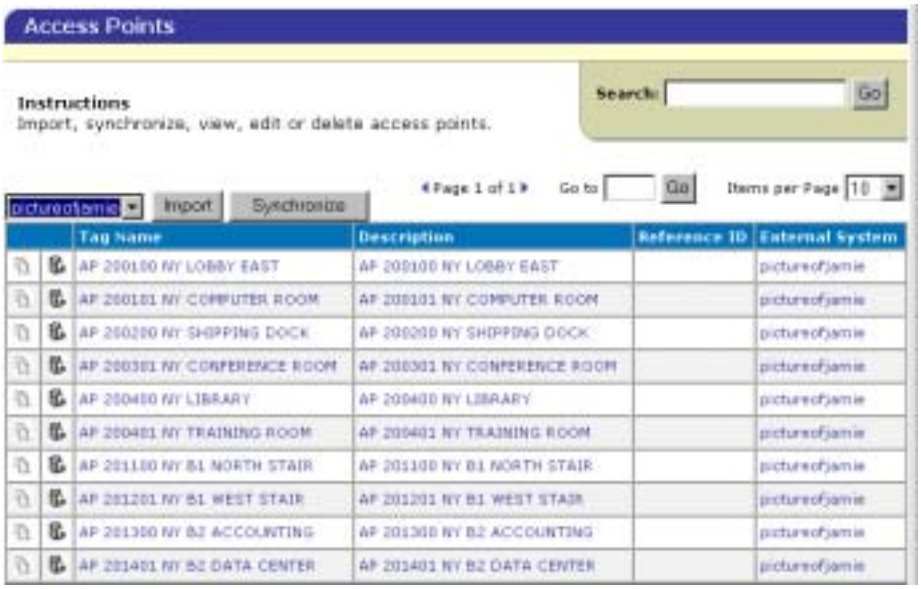


Figure 50. Configure Access Point page

3. Enter the information described in Table 35. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 35 lists and describes the fields on the Configure Access Point page.

Table 35. Configure Access Points fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

General Tab

Figure 51. Configure Access Point — General tab

5. Select the **General** tab as shown in Figure 51 and enter the information described in Table 36. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 36. Configure Access Points fields and descriptions

Field Name	REQ	Description
Graphic Display		Use the drop-down list box to select the graphic display to show when an alarm is generated for this access point. When a site plan is selected, a globe icon displays on the Alarm Monitor and Event Monitor when an alarm event occurs indicating a site plan is available.
Time Zone	✔	Use the drop-down list to select the time zone for this access point. This time zone displays on the Alarm Monitor or Event Monitor. The default time zone setting is GMT.

Facility Tab

Figure 52. Configure Access Point — Facility tab

6. Select the Facility tab as shown in Figure 52 and enter the information described in Table 37.

Table 37. Configure Access Points fields and descriptions

Field Name	REQ	Description
Assigned to		Displays the facility or facilities for this access point. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Synchronizing Access Points

➤ **To synchronize access points, follow these steps:**

1. Select **Device Management**, and then **Access Points**. The Access Points list page displays.
2. Click **Synchronize** and the Synchronize page in Figure 53 displays.

Figure 53. Synchronize page

3. Select the records that have changed on the Picture Perfect or Secure Perfect system that should be synchronized with Facility Commander.
4. Click **Synchronize**.

Digital Inputs and Outputs

An input, also called a digital input (DI) or alarm input, is a physical sensing device used to monitor an electronic contact connected to a micro controller. There are three basic types of digital inputs:

- Door sensors, which monitor the door state
- Exit requests, which provide access to leave without presenting a badge
- Devices, which monitor items such as heat and moisture

An output, also called a digital output (DO), is a physical device that controls door hardware or annunciates an alarm. Outputs can also be used to turn lights, heaters, or air conditioners on and off using a schedule.

Use the Picture Perfect or Secure Perfect systems to configure Inputs, Outputs, Input Groups, and Output Groups. Refer to the *Picture Perfect Administration Guide* or *Secure Perfect Administration Guide* for more information.

Refer to the following sections for more information:

- *Importing Digital Inputs* on page 88.
- *Importing Logical Inputs* on page 94.
- *Importing Digital Outputs* on page 100.

Viewing Digital Inputs

Use the **Digital Inputs** page to view, import, copy, delete, and synchronize records from Picture Perfect or Secure Perfect.

➤ **To view digital inputs, follow these steps:**

1. Select **Device Management**.
2. Select **Digital Inputs**. The Digital Inputs page as shown in Figure 54 displays.

Figure 54. Digital Inputs page

Importing Digital Inputs

Click icon to see demo.

➤ **To import digital inputs, follow these steps:**

1. Select **Device Management**, and then **Digital Inputs**. The Digital Inputs page displays.
2. Use the **Server** drop-down list to select the Picture Perfect or Secure Perfect server with the records you want to import.
3. Click **Import**. The Import page as shown in Figure 55 displays.

Figure 55. Import page

4. Use the **Time Zone** drop-down list to select the time zone where this device is located.
5. Select the digital inputs you want to import. Use the **Shift** key to select all the records or the **Ctrl** key to make multiple selections from the list.
6. Click **Import**. The Digital Inputs list page displays with the imported items from Picture Perfect or Secure Perfect.

Editing Digital Inputs

Edit each digital input to change a time zone or to specify which graphic display shows in the Graphics Viewer when an alarm event occurs.

➤ **To make changes to a digital input, follow these steps:**

1. Select **Device Management**, and then **Digital Inputs**. The Digital Inputs list page displays.
2. Locate the digital input you want to edit and select the link. The Configure Digital Input page as shown in Figure 56 displays.

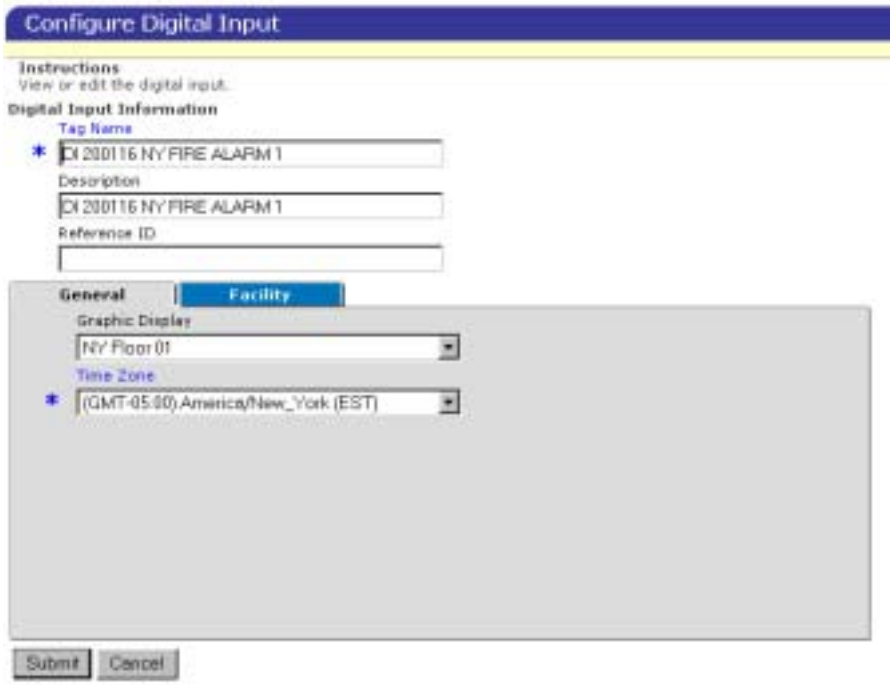


Figure 56. Configure Digital Input page

3. Enter the information described in Table 38. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 38. Configure Digital Input fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

General Tab

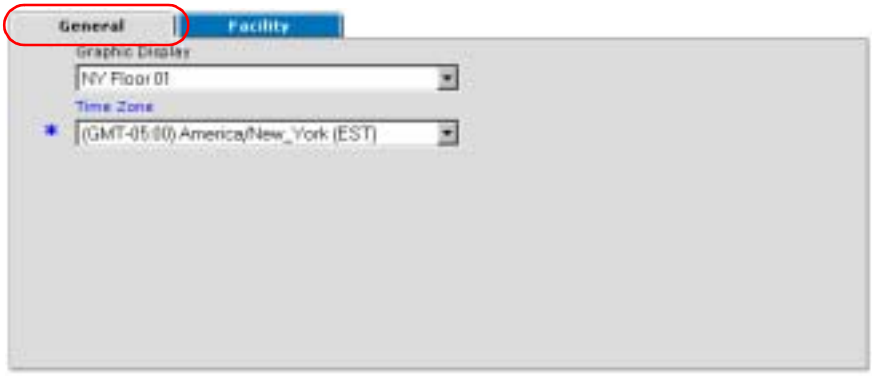


Figure 57. Configure Digital Input — General tab

5. Select the General tab as shown in Figure 57 and enter the information described in Table 39. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 39. Configure Digital Input fields and descriptions

Field Name	REQ	Description
Graphic Display		Use the drop-down list box to select the site plan to display when an alarm is generated for this digital input. When a site plan is selected, a globe icon displays on the Alarm Monitor and Event Monitor when an alarm event occurs indicating a site plan is available.
Time Zone	✔	Use the drop-down list to select the time zone for this device. This time zone displays on the Alarm Monitor or Event Monitor. The default time zone setting is GMT.

Facility Tab

Figure 58. Configure Digital Input — Facility tab

6. Select the Facility tab as shown in Figure 58 and enter the information described in Table 40.

Table 40. Configure Digital Input fields and descriptions

Field Name	REQ	Description
Assigned to		Displays the facility or facilities for this digital input. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Synchronizing Digital Inputs

➤ **To synchronize digital inputs, follow these steps:**

1. Select **Device Management**, and then **Digital Inputs**. The Digital Input list page displays.
2. Click **Synchronize** and the Synchronize page in Figure 53 displays.

Figure 59. Synchronize page

3. Select the records that have changed on the Picture Perfect or Secure Perfect system that should be synchronized with Facility Commander.
4. Click **Synchronize**.

Viewing Logical Inputs

Use the Logical Inputs page to view, import, copy, delete, and synchronize logical input records from Picture Perfect or Secure Perfect.

➤ **To view logical inputs, follow these steps:**

1. Select **Device Management**.
2. Select **Logical Inputs**. The Logical Inputs page as shown in Figure 60 displays. The Input record imported from the Picture Perfect or Secure Perfect system displays in the **Tag Name** field, with LI prepended to the name.

Figure 60. Logical Inputs page

Importing Logical Inputs

Click icon to see demo.

➤ **To import logical inputs, follow these steps:**

1. Select **Device Management**, and then **Logical Inputs**. The Logical Inputs list page displays.
2. Use the **Server** drop-down list to select the Picture Perfect or Secure Perfect server with the records you want to input.
3. Click **Import**. The Import page as shown in Figure 61 displays.

Figure 61. Import page

4. Use the **Time Zone** drop-down list to select the time zone where this device is located.
5. Select the logical inputs you want to import. Use the **Shift** key to select all the records or the **Ctrl** key to make multiple selections from the list.
6. Click **Import.** The Logical Input list page displays with the imported items from Picture Perfect or Secure Perfect.

Editing Logical Input Records

➤ **To make changes to a logical input, follow these steps:**

1. Select **Device Management**, and then **Logical Inputs**. The Logical Inputs list page displays.
2. Locate the logical input you want to edit and select the link. The Configure Logical Input list page in Figure 62 displays.

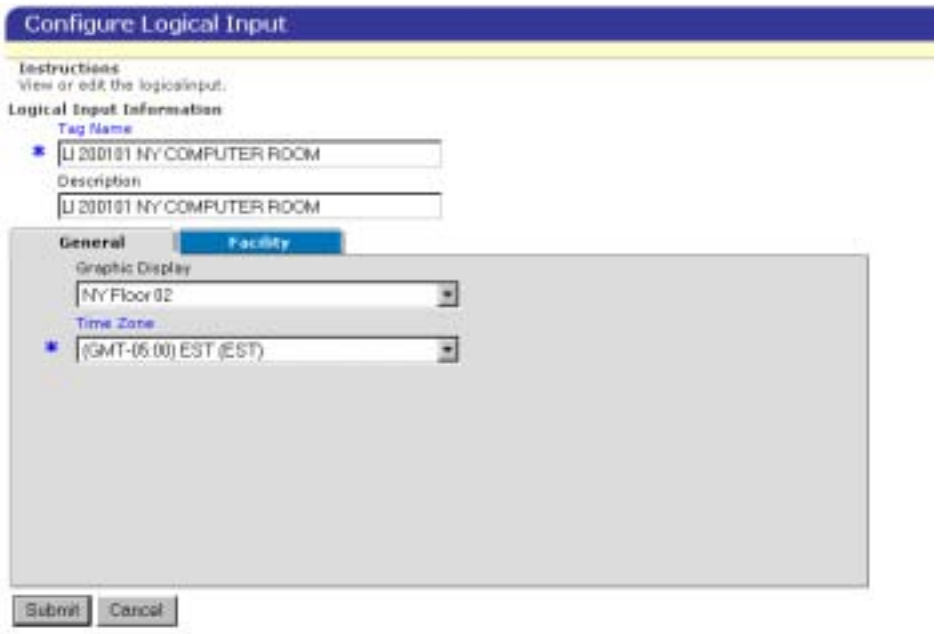


Figure 62. Configure Logical Input

3. Enter the information described in Table 41. A check mark indicates a required field. Continue to enter information on the tabbed pages. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 41. Configure Logical Input fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

General Tab

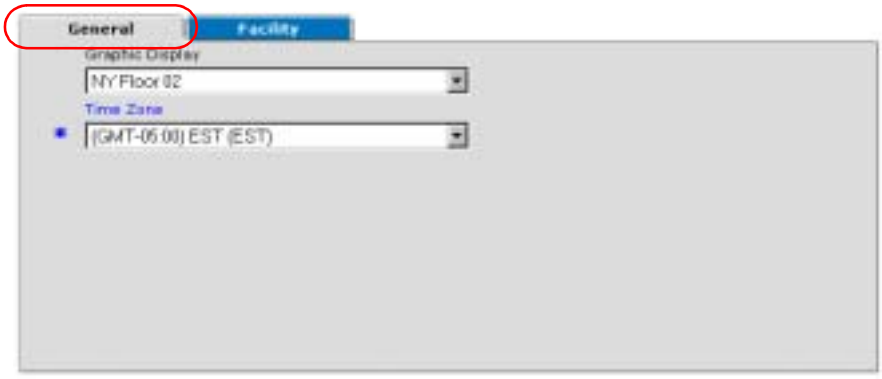


Figure 63. Configure Logical Input — General tab

5. Select the General tab as shown in Figure 63 and enter the information described in Table 42. A check mark indicates a required field.

Table 42. Configure Logical Input fields and descriptions

Field Name	REQ	Description
Display Map		Use the drop-down list box to select the site plan to display when an alarm is generated for this logical input. When a site plan is selected, a globe icon displays on the Alarm Monitor and Event Monitor when an alarm event occurs indicating a site plan is available.
Time Zone	✔	Use the drop-down list to select the time zone for this device. This time zone displays on the Alarm Monitor and Event Monitor. The default time zone setting is GMT.

Facility Tab

Figure 64. Configure Logical Input — Facility tab

6. Select the Facility tab as shown in Figure 64 and enter the information described in Table 43.

Table 43. Configure Logical Input fields and descriptions

Field Name	REQ	Description
Assigned to		Displays the facility or facilities for this logical input. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Synchronizing Logical Inputs

➤ **To synchronize logical inputs, follow these steps:**

1. Select **Device Management**, and then **Logical Inputs**. The Logical Inputs list page displays.
2. Click **Synchronize** and the Synchronize page in Figure 65 displays.

Figure 65. Synchronize page

3. Select the records that have changed on the Picture Perfect or Secure Perfect system that should be synchronized with Facility Commander.
4. Click **Synchronize**.

Viewing Digital Outputs

Use the Digital Outputs page to view, import, edit, copy, delete, or synchronize digital output records from Picture Perfect or Secure Perfect.

➤ **To view digital outputs, follow these steps:**

1. Select **Device Management**.
2. Select **Logical Inputs**. The Logical Inputs page as shown in Figure 60 displays. The Output record imported from the Picture Perfect or Secure Perfect system displays in the **Tag Name** field, with DO prepended to the name.

Figure 66. Digital Output page

Importing Digital Outputs

Click icon to see demo.

➤ **To import digital outputs, follow these steps:**

1. Select **Device Management**, and then **Digital Outputs**. The Digital Outputs page displays.
2. Use the **Server** drop-down list to select the Picture Perfect or Secure Perfect server with the records you want to input.
3. Click **Import**. The Import page as shown Figure 67 displays.

Figure 67. Import page

4. Use the **Time Zone** drop-down list to select the time zone where this device is located.
5. Select the digital outputs you want to import. Use the **Shift** key to select all the records or the **Ctrl** key to make multiple selections from the list.
6. Click **Import**. The Digital Output list page displays the imported items from the Picture Perfect or Secure Perfect server.

Editing Digital Outputs

Edit each digital output to assign a time zone or to specify which site plan displays in the Graphics Viewer when an alarm event occurs.

➤ **To make changes to a digital output, follow these steps:**

1. Select **Device Management**, and then **Digital Outputs**. The Digital Outputs list page displays.
2. Locate the digital output you want to edit and select the link. The Digital Outputs page in Figure 68 displays.

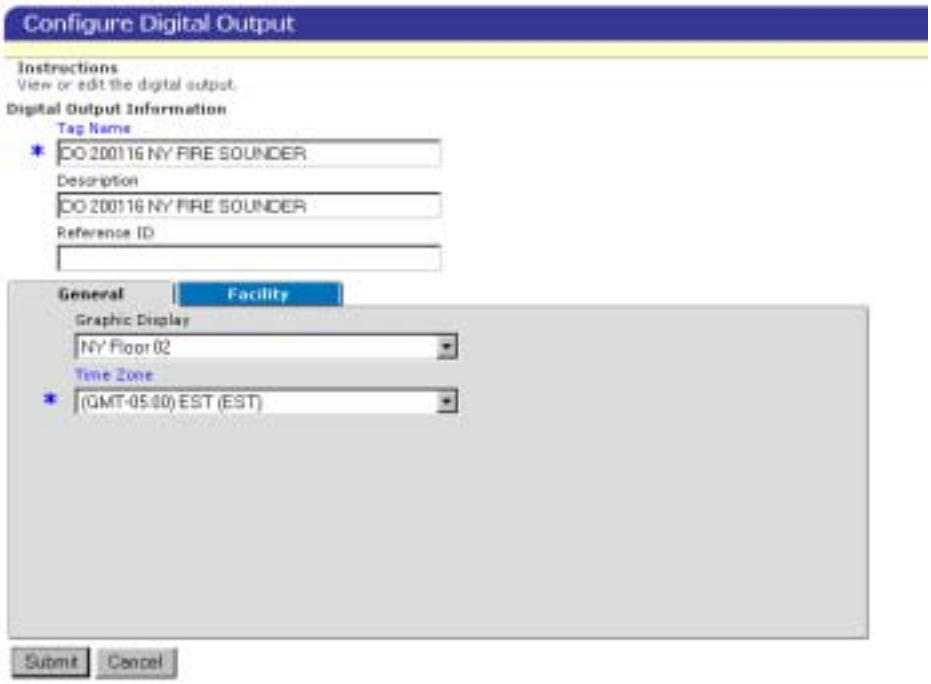


Figure 68. Configure Digital Output

3. Enter the information described Table 44 on page 101. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 44. Configure Digital Output fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

General Tab

Figure 69. Configure Digital Output — General tab

5. Select the General tab as shown in Figure 69 and enter the information described in Table 45. A check mark indicates a required field.

Table 45. Configure Digital Output fields and descriptions

Field Name	REQ	Description
Graphic Display		Use the drop-down list box to select the site plan to display when an alarm is generated for this access point. When a site plan is selected, a globe icon displays on the Alarm Monitor when an alarm event occurs indicating a site plan is available.
Time Zone	✔	Use the drop-down list to select the time zone for this device. This time zone displays on the Alarm Monitor or Event Monitor. The default time zone setting is GMT.

Facility Tab

Figure 70. Configure Digital Output — Facility tab

6. Select the Facility tab as shown in Figure 70 and enter the information described in Table 46.

Table 46. Configure Digital Output fields and descriptions

Field Name	REQ	Description
Assigned to		Displays the facility or facilities for this digital output. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Synchronizing Digital Outputs

➤ **To synchronize access points, follow these steps:**

1. Select **Device Management**, and then **Digital Outputs**. The Digital Outputs list page displays.
2. Click **Synchronize** and the Synchronize page in Figure 71 displays.

Figure 71. Synchronize page

3. Select the records that have changed on the Picture Perfect or Secure Perfect system that should be synchronized with Facility Commander.
4. Click **Synchronize**.

Chapter 5. Assigning Permissions and Context

This chapter describes how facilities, permissions, and context are assigned to operators and used to control access to features and visibility to items in the database.

In this chapter:

Overview on page 106
Examples on page 125
Checklist on page 107
Facility Permissions on page 109
System Permissions on page 115
Contexts on page 120
Examples on page 125

Overview

Facilities, permissions, and context are used to control access to features and visibility to items in the database, such as the ability to view and edit device records or issue commands to lock and unlock access points.

Figure 72. Context definition

In the equation above, facilities determine which items an operator can see, permissions determine what actions an operator can take; and together make up the operator's context.

Facilities

Facilities determine which items an operator can view or access.

The facilities feature partitions the Facility Commander database into logical segments, or grouping of items. Items include all the objects that an operator can view, control, or modify, such as access points, DVRs, and cameras.

An item can belong to more than one facility. Each facility can be a member of one other facility. Refer to *Facility Permissions* on page 109 for more information.

Permissions

Permissions define what actions an operator may perform with specific items.

Permissions can be described in terms of the operator's role, such as system administrator, guard supervisor, guards. Permission can also be described in terms of the actions that can be performed, such as viewing and updating records.

In planning the system, carefully determine the permissions that each person will require to support the tasks associated with their job responsibilities. Permissions clearly define the limits of who can view or modify information in the database.

There are two types of permissions which will be described later — system and facility.

Context

Context defines which items an operator can view and what actions they can take.

Context consists of a single System Permission and one or more Facility and Facility Permission pairs. A context is created for each *type* of operator, such as entry level guard or supervisor. Refer to *Contexts* on page 120 for information about configuring contexts.

Pre-Defined Permissions and Context

Facility Commander provides pre-defined permissions and contexts that can be assigned to operators. These pre-defined permissions can be copied to create new permissions, but they cannot be deleted. The Delete icon is dimmed.

Examples

Refer to the *Examples* on page 125 to see how a typical system can be configured. Facility Commander provides sample facility, permission, and context definitions.

Checklist

This checklist is provided to describe to the system administrator all the tasks needed to implement the facilities, permissions, and context features. The tasks begin with importing Picture Perfect facilities and end with assigning context to an operator.

✔	Begin by importing existing Picture Perfect facilities. Imported facilities are automatically be assigned to the same facility as in Picture Perfect. Refer to *Importing Facilities* on page 76 for more information.
✔	Review the imported facilities and examine their relationship. Decide if the existing facility structure is suitable, or if new facilities are needed. - If you want to maintain the same facility structure as defined in Picture Perfect, assign the imported facilities to the Global Facility. - If not, create new facilities and move the imported facilities as needed. Refer to *Creating a Facility* on page 77 for more information.
✔	Review the facility level permissions and create new permissions, if necessary. Facility level permissions are used to grant permission to lock and unlock access points, view video, purge alarms, and more. Refer to *Adding Facility Permissions* on page 111 for more information.
✔	Review the system level permissions and create new permissions, if necessary. System level permissions are used to grant permission to use the client applications, such as the Alarm Monitor, create event action mappings, or shut down the system. Refer to *Adding System Permissions* on page 117 for more information.
✔	Review the context definitions and create new contexts, if necessary. The context determines which items an operator can view and what actions they may take. To define a context, select the appropriate system permission and then select the appropriate permissions for each facility. Refer to *Adding Context Definitions* on page 121 for more information.

✔	Assign a context to each operator. Context determines which items the operator can see and what actions they can take. Refer to *Adding Operators* on page 67 for more information.

Facility Permissions

Use Facility Permissions to grant or deny permissions to monitor and control items, such as, locking or unlocking door access points or control PTZ cameras, view live or recorded video, acknowledge alarms, and more.

A system administrator may need permissions to create or modify items such as door access points, while another operator may need only view permissions for applications such as the Alarm Monitor.

Facility Commander provides pre-defined Facility Permissions that can be modified, which include:

- **All Facility Permissions**
  Grants all permissions, including view, update, create, and delete items. This also grants permission for all actions, such as locking and unlocking doors, controlling cameras and acknowledging an alarms.
- **Update Configuration Facility Permissions**
  Grants all permissions, but not for actions like acknowledging alarms.
- **View Configuration Facility Permissions**
  Grants permissions to view all items, but not modify.
- **No Configuration Facility Permissions**
  Grants no permissions.

There are also three pre-defined guard-level permissions, which are:

- **Guard Supervisor System Permissions** grants permission to purge alarms from the Alarm Monitor in addition to the same permissions as the guard levels.
- **Intermediate Guard Permissions**
- **Entry Level Guard Permissions**

Using Pre-Defined Facility Permissions

Use the pre-defined permissions to create new permissions. The sample permission files can be copied, but not deleted as they are permanent Facility Commander records.

➤ **To use one of the pre-defined facility permissions, follow these steps:**

1. Click the **Copy** icon next to the pre-defined facility permission that you want to use. The Configure Facility Permission page as shown in Figure 74 on page 111 displays.
2. Enter the information required to modify a facility permission record.
   - Change the tag name and description.
   - Review the tabbed pages and make the appropriate modifications.
3. Click **Submit** to save the record.

Viewing Facility Permissions

Use the Facility Permissions page to view, add, edit, copy, or delete facility permission records. Refer to the following sections:

- *Using Pre-Defined Facility Permissions*.
- *Adding Facility Permissions* on page 111.

➤ **To view facility permissions, follow these steps:**

1. Select **Operator Administration.**
2. Select **Facility Permissions**. The Facility Permission page as shown in Figure 73 displays.

Figure 73. Facility Permissions page

Adding Facility Permissions

Click icon to see demo.

➤ **To add or edit a facility permission, follow these steps:**

1. Select **Operator Administration**, and then **Facility Permissions**. The Facility Permissions page displays.
2. Click **Add Facility Permission** to display the Configure Facility Permissions page as shown in Figure 74.

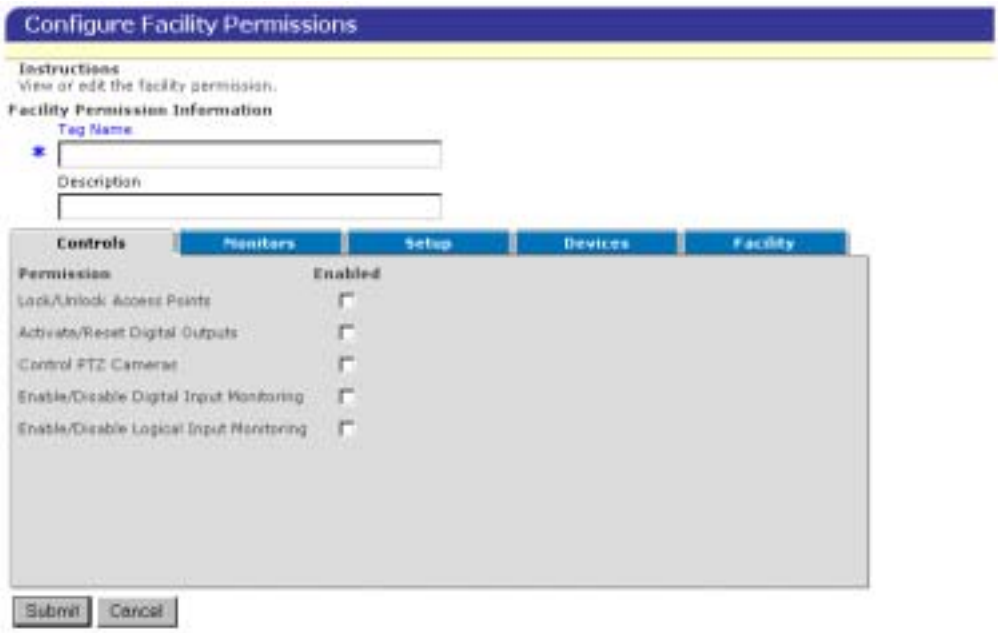


Figure 74. Configure Facility Permissions page

3. Enter the information described in Table 47. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 47. Configure Facility Permissions — Control tab

Field Name	REQ	Description
Tag Name	✔	Enter a name to identify this record. Use 2-36 characters.
Description		Enter a description for this record. Use 1-100 characters.

Control Tab

Figure 75. Facility Permissions — Controls tab

5. Select the **Control** tab shown in Figure 75 to choose one or more check boxes granting permissions. A check mark indicates the permission is enabled.
   - Enabling the Control PTZ Cameras permission also grants View Live Video permissions to be enabled. If the View Live Video permission is not enabled, the Control PTZ Cameras permission is also not enabled.

Monitors Tab

Figure 76. Facility Permissions — Monitors tab

6. Select the **Monitors** tab shown in Figure 76 to choose one or more check boxes granting permissions. A check mark indicates the permission is enabled.
   - Enabling the View Live Video permission also grants Control PTZ Cameras permission to be enabled. If the View Live Video permission is not enabled, the View Live Video permission is also not enabled.

Setup Tab

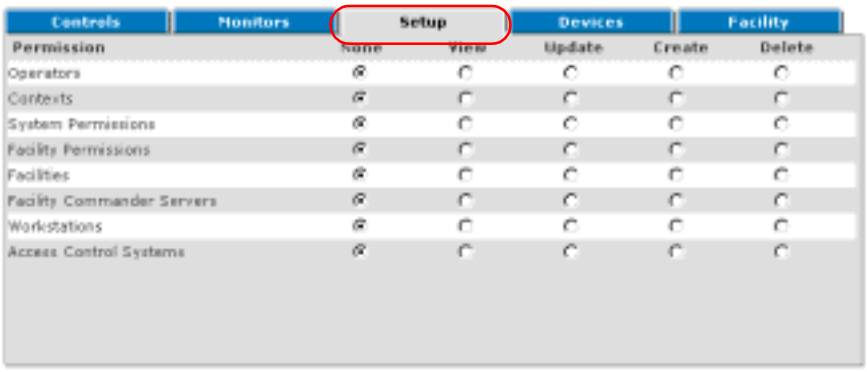


Figure 77. Facility Permissions — Setup tab

7. Select the **Setup** tab shown in Figure 77. For each permission, such as Workstations, select the appropriate permission level. All permissions preceding the selected button are granted.
   - If **Create** is selected, an operator has permission to view and update workstation records.
   - If **View** is selected, an operator can only view workstation records and cannot modify or delete them.
8. Review permission and select the appropriate permissions level.

Devices Tab

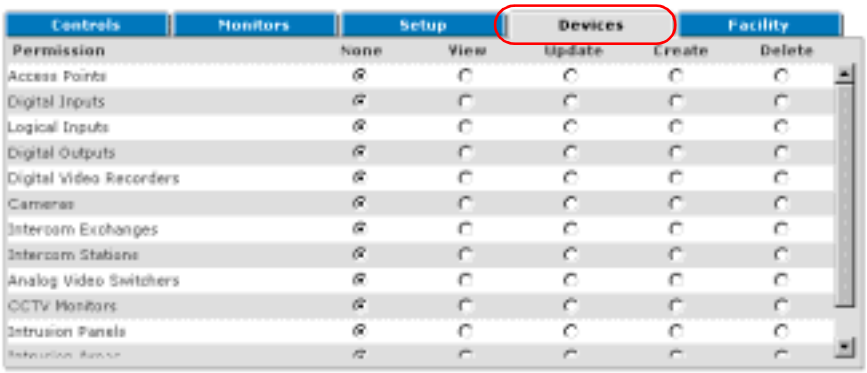


Figure 78. Facility Permissions — Devices tab

9. Select the **Devices** tab shown in Figure 78. For each permission, such as Camera Permission, select the appropriate permission level. Permission is granted to all the actions preceding the selected option.
   - If **Create** is selected, an operator has permission to view and update the camera device records.
   - If **View** is selected, an operator can only view camera records and cannot modify or delete them.
10. Review each item and select the appropriate permissions. When you select one of these option buttons, permission is granted to all of the actions preceding the selected option button.

System Permissions

Use System Permissions to grant or deny access to system applications, such as the Alarm Monitor or Event Monitor, or other items that are not assigned to facilities. Examples of items that are not in facilities include: alarm colors, alarm instructions, and alarm profiles.

Using Pre-defined System Permissions

Facility Commander provides pre-defined System Permissions that can be modified, which include:

- **All System Permissions**
  Grants all permissions, including view, update, create, and delete for system level items. This also grants permission to use applications, such as the Alarm Monitor or permission to configure event action mapping definitions.
- **No System Permissions**
  Grants no permissions.

There are three pre-defined guard level permissions, which are:

- **Guard Supervisor System Permission**
- **Intermediate Guard Permissions**
- **Entry Level Guard Permissions**

The pre-defined permissions can be copied to create new permissions, but not deleted as they are permanent Facility Commander records.

➤ **To use one of the pre-defined facility permissions, follow these steps:**

1. Click the **Copy** icon next to the pre-defined system permission that you want to use and the Configure System Permissions page as shown in Figure 80 displays.
2. Enter the information required to modify a facility permission record.
   - Change the tag name and description.
   - Review the tabbed pages and make the appropriate modifications.
3. Click **Submit** to save the record.

Viewing System Permission

Use the System Permission page view, add, edit, copy, or delete system permission records. Refer to the following:

- *Using Pre-defined System Permissions*.
- *Adding System Permissions* on page 117.

➤ **To view system permissions, follow these steps:**

1. Select **Operator Administration**.
2. Select **System Permissions**. The System Permission page as shown in Figure 80 displays.

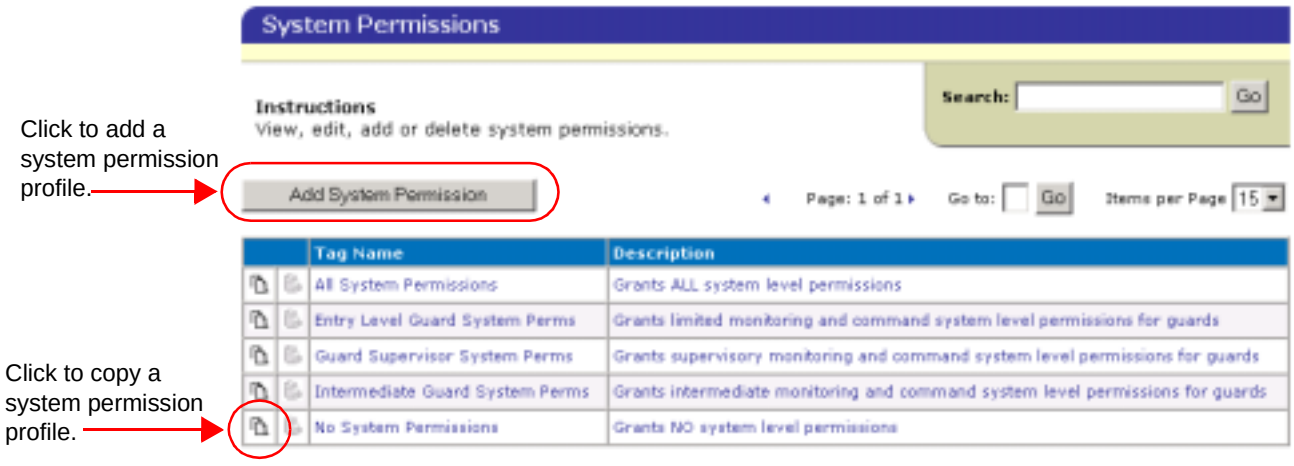


Figure 79. System Permissions

Adding System Permissions

➤ **To add or edit a system permission, follow these steps:**

1. Select **Operator Administration**, and then **System Permissions**. The System Permissions page displays**.**
2. Click **Add System Permission**. The Configure System Permissions page as shown in Figure 80 displays**.**

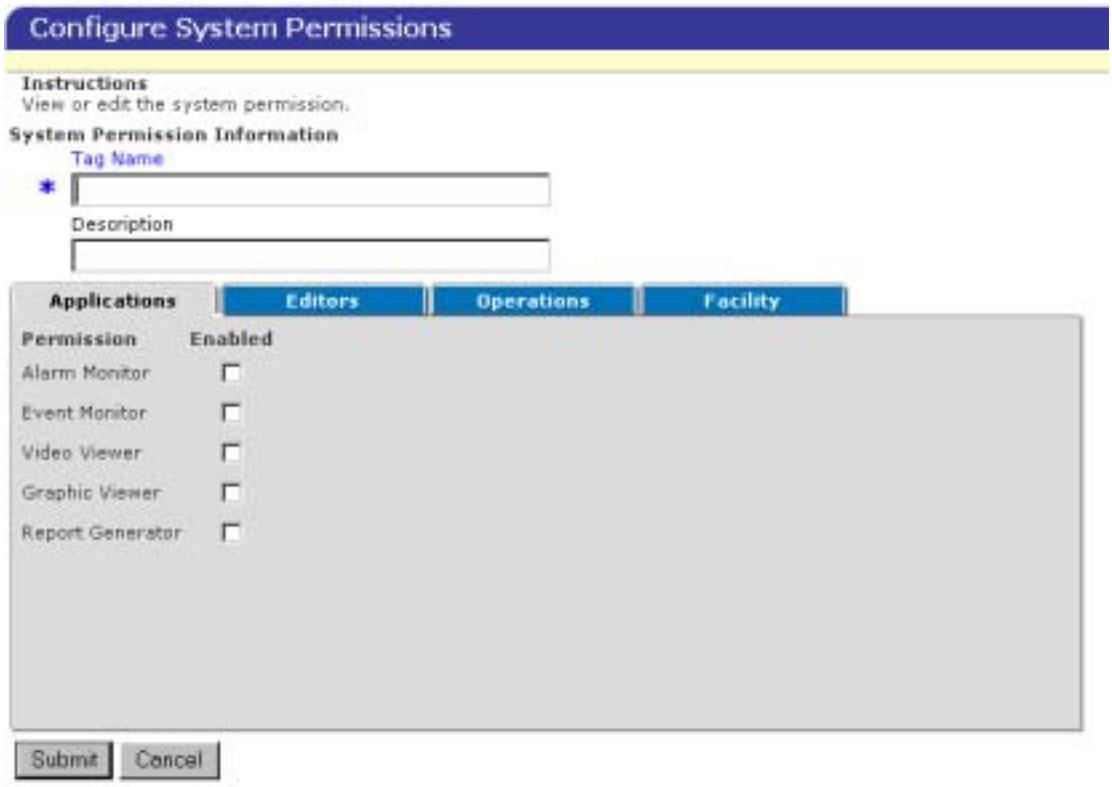


Figure 80. Configure System Permissions page

3. Enter the information described in Table 48. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 48. Configure System Permissions fields and description

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.

Applications Tab

Figure 81. Configure System Permissions page — Applications tab

5. Select the **Applications** tab shown in Figure 81 to choose one or more check boxes granting permissions. A check mark indicates the permission is enabled.

Editors Tab

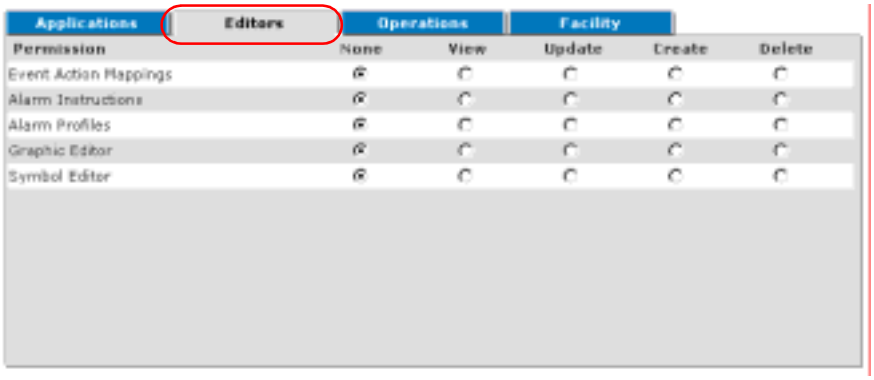


Figure 82. Configure System Permissions page — Editors tab

6. Select the **Editors** tab shown in Figure 82. For each permission, such as the Event Action Mapping Permission, select the permission level. All permissions preceding the selected button are granted.
   - If **Create** is selected, an operator has permission to create, view and update Event Action Mappings.
   - If **View** is selected, an operator can only view the Event Action Mapping records, and cannot modify or delete them.
7. Review each permission and select the appropriate permission level.

Operations Tab

Figure 83. Configure System Permissions page — Operations tab

8. Select the **Operations** tab as shown in Figure 83 to choose one or more check boxes granting permissions. A check mark indicates the permission is enabled.

Contexts

Contexts are comprised of system permissions and facility permissions; and assigned to each operator.

Facility Commander provides pre-defined Contexts that can be modified to meet your organization's needs, which include:

- **System Administrator Context**
  Grants control over the entire system. It grants all permissions to all action, items, and facilities.
- **Regional Administrator Context**
  Grants control over a limited portion of the system. It grants all system level permissions to all actions and items, but not all facilities.

The Context definitions also include three guard-level permissions that range from supervisory monitoring and command capabilities to a more limited definition suitable for a beginner operator guard. These include:

- **Guard Supervisor Context**
- **Intermediate Guard Context**
- **Entry Level Context**

Viewing Context Definitions

Use the Context page to view, add, edit, copy, or delete context records.

➤ **To view the context definitions, follow these steps:**

1. Select **Operator Administration**
2. Select **Context**. The Contexts page as shown in Figure 84 displays.

Figure 84. Contexts page

Adding Context Definitions

Click icon to see demo.

➤ **To add the context definitions, follow these steps:**

1. Click **Add Context. T**he Define Context page as shown in Figure 85 displays.

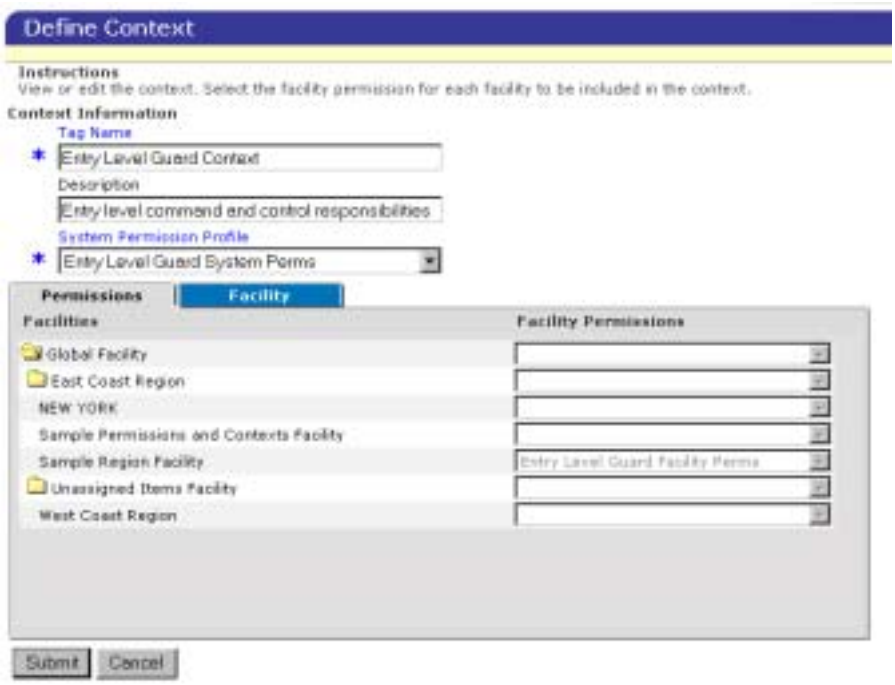


Figure 85. Define Context page

2. Enter the information described in Table 49 to define a new context definition. Continue to enter information on the tabbed pages.
3. Click **Submit** to save the record.

Table 49 on page 121 lists and describes the elements on the Define Context page.

Table 49. Define Context fields and elements

Element	REQ	Description
Tag Name	✔	Enter a name to identify this record. Use 2-36 characters.
Description		Enter a description for this record. The description must be 1-100 characters.
System Profile	✔	Select the system permission definition.

Table 49. Define Context fields and elements (Continued)

Element	REQ	Description
Global Facility		Use the Global Facility drop-down list to select the appropriate permission level for this context. It cannot be deleted. • To grant full access to a system administrator, select **All Facility Permissions**. Other contexts should limit access to this facility. • To grant partial access to a regional system administrator, select **No Facility Permissions** at the Global Facility and select **All Facility Permissions** at the Regional Facility.
Unassigned Items Facility		This facility contains all newly created, facility-based items. When the new facility is assigned to its correct facility, it is automatically removed from the Unassigned Items Facility.

Permissions Tab

Figure 86. Define Context — Permissions tab

4. Select the **Permission** tab shown in Figure 86 to choose one or more permissions to associate with this context definition. Refer to *Adding Facility Permissions* on page 111 for more information. Continue to enter information on the next tabbed page.

Facility Tab

Figure 87. Define Context — Facility tab

5. Select the **Facility** tab as shown in Figure 87 and enter the information described in Table 50.

Table 50. Define Context fields and descriptions

Field Name	REQ	Description
Assigned to		Displays the facility or facilities for this context definition. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Pre-defined Contexts

Facility Commander provides five pre-defined contexts. Table 51 shows the Facility Permissions and System Permissions associated with each context.

Table 51. Pre-defined Contexts

Contexts	System Permissions	Facility Permissions
System Administrator	All System Permissions	All Facility Permissions for Global Facility
	Other Pre-defined System Permissions	Other Pre-defined Facility Permissions
	No System Permissions	No Facility Permissions
		View Configuration Facility Permissions
		Update Configuration Facility Permissions
Regional Administrator	All System Permissions	All Facility Permissions for Sample Region Facility, Sample Permissions and Context.
Guard Supervisor	Guard Supervisor System Permissions	Guard Supervisor Facility Permissions
Intermediate Guard	Intermediate Guard System Permissions	Guard Supervisor Facility Permissions
Entry Level Guard	Entry Level Guard System Permissions	Entry Level Guard Facility Permissions

Examples

Facility Commander provides the flexibility to build relationships by creating parent facilities and sub-facilities. *Each facility can be a member of one other facility. An item can belong to more than one facility.*

In the illustration in Figure 88, facilities in different geographic locations are used to show the relationship between facilities. These facilities will be used later to build contexts.

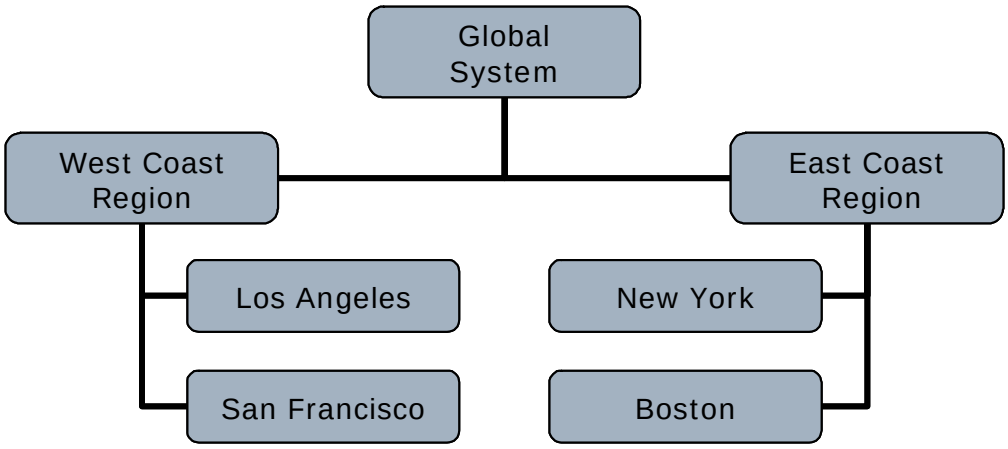


Figure 88. Two regional facilities and four imported facilities.

The imported Picture Perfect facilities are:

- Los Angeles representing a corporate office
- San Francisco representing a sales office
- New York representing a corporate office
- Boston representing a data center

To further organize the facilities, two additional facilities are created — West Coast Region and East Coast Region. These regional facilities are used to group the individual area facilities, which includes New York, Boston, Los Angeles, and San Francisco. By creating the regional levels, a hierarchy is established. Permissions do not have to be explicitly defined at the individual area level, but rather can be inherited from their regional facility.

By granting access to the each regional administrator, the administrator has access to everything below in the hierarchy. The permissions are inherited from the facility above, unless explicitly specified.

In this example:

- The system administrator is assigned the System Administrator Context and therefore given full access to all items in the system.

- A regional system administrator is assigned the Regional Administrator Context and therefore given access to items in their regional facility. This administrator would not have access to items in another regional facility, unless permission is specifically granted.
- Operators assigned to a lower level facility, such as New York, might be granted permissions to view and control the items associated with the New York facility, but not others.

To accomplish this, the context definitions would look like this:

System Administrator	
Context	System Administrator
System Permissions	All System Permissions
Facility Permissions	All Facility Permissions for Global Facility

East Coast Regional Administrator	
Context	East Coast Regional Administrator
System Permissions	All System Permissions
Facility Permissions	All Facility Permissions for East Coast Facility

Because the East Coast Facility is the parent facility of New York and Boston, the regional administrator will automatically be given full access to New York and Boston items.

West Coast Regional Administrator	
Context	West Coast Regional Administrator
System Permissions	All System Permissions
Facility Permissions	All Facility Permissions for West Coast Facility

Because the West Coast Facility is the parent facility of Los Angeles and San Francisco, the regional administrator will automatically be given full access to Los Angeles and San Francisco items.

Chapter 6. Configuring Video Devices

This chapter describes how to configure video devices, cameras, and camera preset positions, CCTV monitors, and switchers. Troubleshooting steps are provided for extra assistance, if there is any difficulty.

Readers should use the vendor's documentation for instructions on how to use their products. For information about device drivers refer to the vendor's Release Notes.

In this chapter:

Overview on page 128
Configuring Digital Video Recorders on page 131
Configuring Cameras on page 138
Configuring Camera Preset Positions on page 143
Linking Cameras to DVRs on page 145
Configuring Analog Switchers on page 147
Configuring CCTV Monitors on page 154
Associating Analog Switcher Devices on page 157
Troubleshooting Steps on page 159

Overview

The digital video features in Facility Commander allow operators to view live and recorded video; select and control different cameras; direct cameras to a preset position; and mark a video clip to playback later.

Refer to the following checklist for the configuration order to add media devices to Facility Commander:

✔	Configure the Digital Video Recorders (DVRs). Refer to *Configuring Digital Video Recorders* on page 131.
✔	Configure the cameras. Refer to *Configuring Cameras* on page 138 for more information.
✔	Identify the preset camera positions. Refer to *Configuring Camera Preset Positions* on page 143 for more information.
✔	Link the cameras to the Digital Video Recorders (DVRs). Refer to *Linking Cameras to DVRs* on page 145 for more information.
✔	Assign the equipment to the appropriate facility. Refer to *Facilities* on page 74 for more information.

Video Devices

The video equipment and supporting software applications must be installed according to the manufacturer's directions. The Facility Commander supports Kalatel and other vendor products including NTSC and PAL video formats.

Refer to the product documentation provided by the manufacturer for instructions to install and use their products.

You can add an unlimited number of DVRs, which allows you to add more DVRs and cameras as your business needs grow. The number of cameras you can use will depend on the DVR type and model used in your environment.

All the cameras in Facility Commander must be licensed; the number of licenses is determined by the number of cameras in the whole deployment and not per DVR device.

Configuring Video IQ

VideoIQ is an intrusion detection solution which can detect people and not just motion. This technology provides automated video surveillance by detecting people in dynamic indoor and outdoor environments.

The common link between VideoIQ and Facility Commander is the DVRMe. This is how it works:

- Video from a camera is constantly processed by the VideoIQ system. When it detects a person has entered a pre-defined region of interest, the VideoIQ system sends a motion detect alarm message to the DVMRe.
- The DVMRe stores the motion detect information in the status buffer. This information is then transmitted over the network when the Facility Commander system polls the DVMRe.
- The Event Action Mapping record, which is pre-defined in Facility Commander, processes the motion detect alarm event and automatically tags the video.
- The motion detect alarm is displayed on the Facility Commander Alarm Monitor. A video icon is part of the alarm message, indicating there is associated video.
- The operator clicks the video icon to play the video in the Facility Commander Video Viewer. The operator will see the person detected by the VideoIQ system, without the red box that the VideoIQ system renders.

Configuring the DVMRe

There are two required DVRMe settings when using the Video IQ people-detection feature, which are the alarm latching mode (DVRMe) and the motion detect settings (camera). Refer to the following sections:

- *Setting the Alarm Latching Mode in DVRMe*.
- *Motion Detection Setting* on page 130.
- *Configuration Settings* on page 130

The Kalatel DVRMe supports motion detection through an alarm mechanism, which is queried by requesting a status message from the DVRMe. Facility Commander polls the DVRMe for this particular status message. The polling interval is configured and the default setting is five seconds.

Setting the Alarm Latching Mode in DVRMe

Configure the DVRMe to identify the unit latches alarm conditions. There are three different options:

- **Latched** means the alarm is activated until acknowledged by the user.
- **Transparent** means the alarm is active only while receiving alarm input. The alarm condition is cancelled when the alarm input ceases.

- **Timed Out** means the alarm condition is latched for the amount of time selected in the configuration menu.

Because Facility Commander polls the DVRMe for status messages, the DVRMe must be configured using the Time Out mode.

If the Transparent or Timed Out mode is selected and a region of interest becomes active for a short period of time (less than the polling interval), the alarm can be missed. To avoid missing alarm events, set the Time Out mode to two seconds greater than the polling interval.

For example, if the polling interval is five seconds, the Timed Out value should equal seven seconds (5 seconds + 2 seconds = 7 seconds). This setting assures the alarm will be present when the system queries it.

Motion Detection Setting

The DVMRe has configuration menus for using motion detection per camera. All motion detection should be disabled on the DVMRe when using VideoIQ with Facility Commander.

The reason for this is because the VideoIQ system determines the motion detection and not the DVMRe. VideoIQ sends a message using RS-232 to the DVRMe, which generates an alarm.

Configuration Settings

Table 52 lists and describes the DVRMe and Facility Commander settings.

Table 52. DVRMe configuration settings

Component	Settings
DVRMe	
Alarm Latching Mode	Timed out
Time Out Value	7 seconds
Motion Detection	Turn off for camera because the VideoIQ system detects motion.
Facility Commander	
DVRMe Polling Interval	5 seconds
Motion Detection	Turn on for camera
Event Action Mapping	Configure motion detect events

Configuring Digital Video Recorders

A Digital Video Recorder (DVR) is a device which is capable of recording video from multiple cameras simultaneously and storing it on the DVR's internal hard disk. The DVR provides access to stored video and live camera images using a standard ethernet connection.

Digital recording can improve playback quality over time-lapse VCRs and eliminates the need to change tapes.

Refer to the following sections:

- *Adding DVRs* on page 132
- *Linking Cameras to DVRs* on page 145

Viewing DVRs

Use the Digital Video Recorders page to view, add, edit, copy, or delete DVR records.

➤ **To view DVRs, follow these steps:**

1. Select **Device Management**.
2. Select **Digital Video Recorders**. The Digital Video Recorders page as shown in Figure 89 displays.

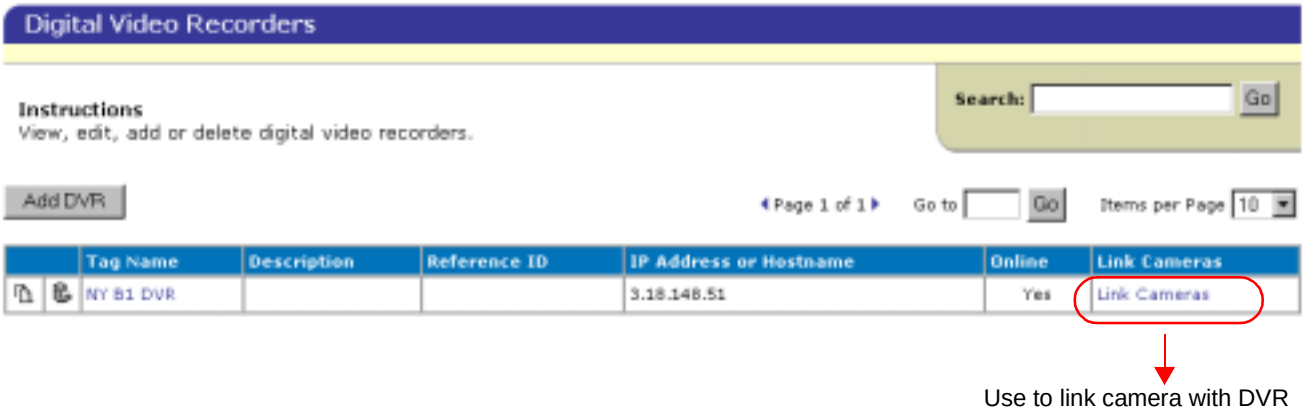


Figure 89. Digital Video Recorders page

Adding DVRs

Click icon to see demo.

➤ **To add a DVR device, follow these steps:**

1. Select **Device Management**, and then **Digital Video Recorders.** The Digital Video Recorders page displays.
2. Click **Add DVR** and the Configure Digital Video Recorder page as shown in Figure 90 displays.

Figure 90. Configure Digital Video Recorder page

3. Enter the information described in Table 53. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 53. Configure DVR fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

Model Tab

Figure 91. Configure DVR — Model tab

5. Select the **Model** tab shown in Figure 91 and enter the information described in Table 54. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 54. Configure DVR fields and descriptions

Field Name	REQ	Description
Online		Default setting is online. A check mark indicates the DVR is online. Clear the check box to take the DVR offline. The DVR must be offline to use another application, such as WaveReader.
Model	✔	Use the drop-down list to select the DVR model name.
Number of Inputs	✔	Enter the number of available inputs on the DVR. This number is different depending on the DVR model.
Time Zone	✔	Use the drop-down list to select the time zone where this device is located. This time zone displays on the Alarm Monitor and Event Monitor. The default time zone setting is GMT.
Facility Commander Server	✔	Use the drop-down list to select the Facility Commander server or Media Server that controls communication with this DVR.
Video Clip Search Timeout (seconds)	✔	Enter the number of seconds to poll the DVR to find a video clip to play.

Addresses Tab

Figure 92. Configure DVR — Addresses tab

6. Select the **Addresses** tab shown in Figure 92 and enter the information described in Table 55. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 55. DVR fields and descriptions

Field Name	REQ	Description
IP Address or Host Name	✔	Enter the DVR IP address or host name. The host name is case-sensitive.
Port	✔	Enter the port number.
RS-485 Address		Enter the RS-485 address. This is configured on the DVR and used for PTZ addressing.
Converter Address		If you are using a converter, enter the address.
Converter Port		If you are using a converter, enter the port number.

Advanced Tab

Figure 93. Configure DVR — Advanced tab

7. Select the **Advanced** tab shown in Figure 93 and enter the information described in Table 56. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 56. DVR fields and descriptions

Field Name	REQ	Description
User Name		Enter a valid user name.
Password		Enter the password to access the DVR. This password is set on the DVR.
Confirm Password		Enter the password again for confirmation.
Status Polling Interval (seconds)	✔	Enter the number of seconds to wait before Facility Commander polls the DVR device. The default value is five seconds.
Reconnect Attempt Interval (seconds)	✔	Enter the number of seconds to wait before trying to reconnect to the Facility Commander server. The default value is 15 seconds.

Alarms Tab

Figure 94. Configure DVR — Alarms tab

8. Select the **Alarms** tab shown in Figure 94 and enter the information described in Table 57. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 57. DVR fields and descriptions

Field Name	REQ	Description
DVR Comm Fail		Select the DVR Comm Fail alarm for this DVR.

Facility Tab

Figure 95. Configure DVR — Facility tab

9. Select the **Facility** tab shown in Figure 95 and enter the information described in Table 58. A check mark indicates a required field.

Table 58. Configure DVR fields and descriptions

Field Name	REQ	Description
Assigned to		Displays the facility or facilities for this device. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

10. Click **Submit** to save the record. After you add the DVR to the system, you must define the cameras, and return to the DVR page to link the cameras to the DVR.

Configuring Cameras

Facility Commander supports multiple camera equipment vendors including their devices with pan/tilt/zoom features and preset camera positions.

Refer to the following sections:

- *Adding Cameras* on page 139
- *Viewing Camera Preset Positions* on page 143
- *Adding Camera Preset Positions* on page 144

Viewing Cameras

Use the Cameras page to view, add, edit, copy, or delete camera records.

➤ **To view camera records, follow these steps:**

1. Select **Device Management**.
2. Select **Cameras**. The Cameras page as shown in Figure 96 displays.

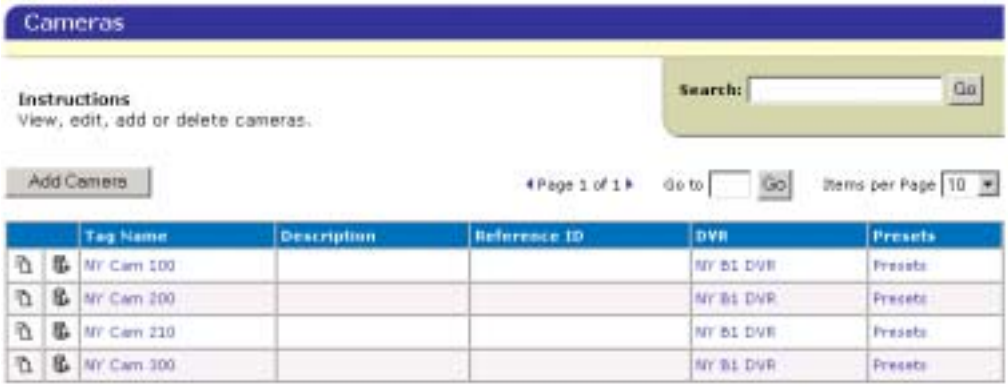


Figure 96. Cameras page

Adding Cameras

Click icon to see demo.

➤ **To add a camera device, follow these steps:**

1. Select **Device Management**, and then **Cameras.** The Cameras page displays.
2. Click **Add Camera.** The Configure Camera page as shown in Figure 97 displays.

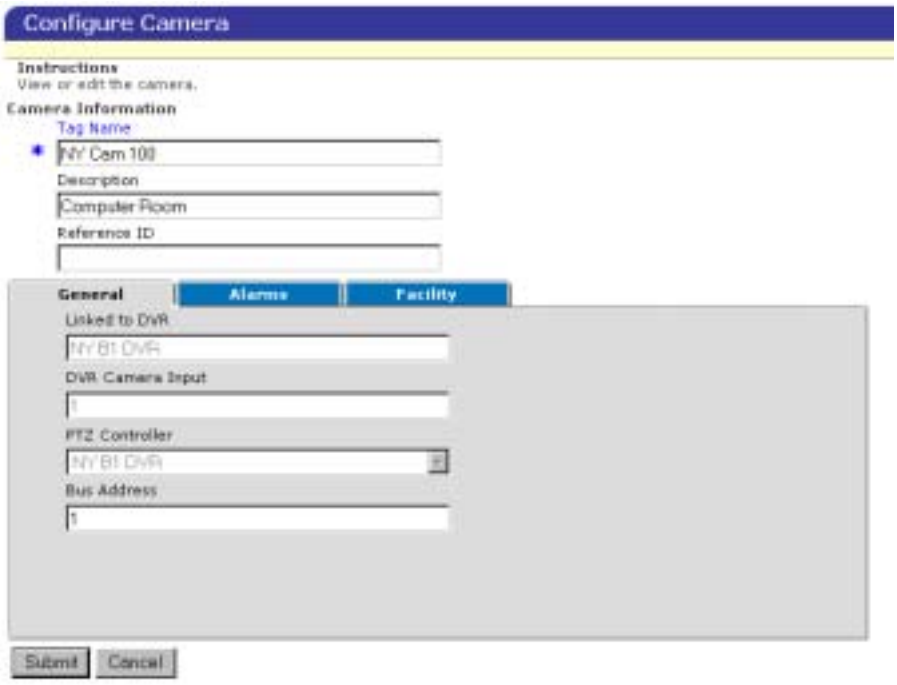


Figure 97. Configure Camera page

3. Enter the information described in Table 59. A check mark indicates a required field. Continue to add information on the tabbed pages.
4. Click **Submit** to save the record.

Table 59. Configure Camera fields and description

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

General Tab

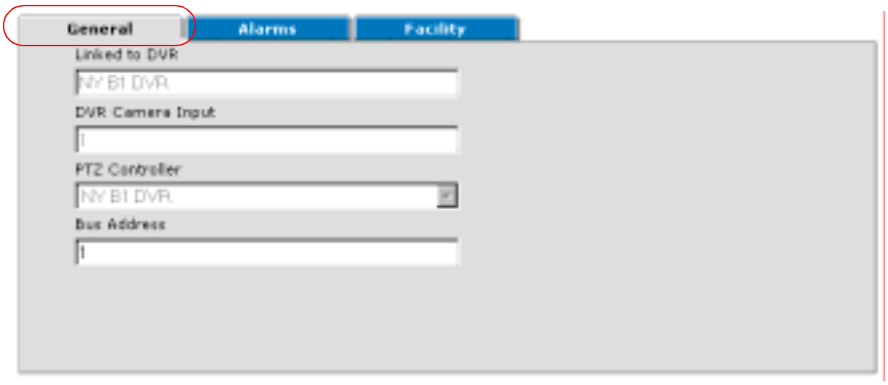


Figure 98. Configure Camera — General tab

5. Select the **General** tab shown in Figure 98 and enter the information described in Table 60. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 60. Configure Camera fields and descriptions — General tab

Field Name	REQ	Description
Linked to DVR		Identifies the DVR where this camera is linked. Refer to *Linking Cameras to DVRs* on page 145 for more information.
DVR Camera Input		Identifies the DVR input associated with this camera.
PTZ Controller		Use the drop-down list to select the DVR that controls the PTZ device.
Bus Address		Enter the bus address, if required.

Alarms Tab

Figure 99. Configure Camera — Alarms tab

6. Select the **Alarms** tab shown in Figure 99 and enter the information described in Table 61. A check mark indicates a required field.

Table 61. Configure Camera fields and descriptions

Field Name	REQ	Description
Motion Detection Alarm		Select the Motion Detection Alarm for this camera.
Video Loss Alarm		Select the Video Loss Alarm for this camera.

Facility Tab

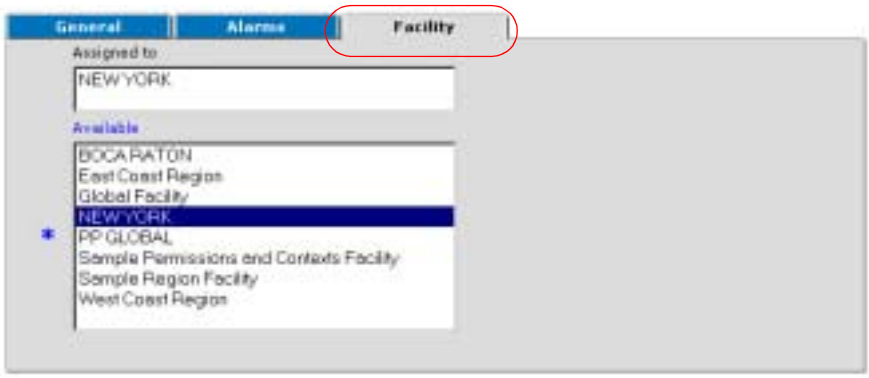


Figure 100. Configure Camera — Facility tab

7. Select the Facilities tab as shown in Figure 100 and enter the information described in Table 62. A check mark indicates a required field.

Table 62. Configure Camera fields and descriptions

Field Name	REQ	Description
Assigned to		Displays the name of facility or facilities where this items is currently assigned. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Configuring Camera Preset Positions

When a camera has PTZ capabilities, the camera presets are first configured using the digital video vendor's equipment. These preset positions are then defined in Facility Commander, so that an operator can control the camera's location.

Viewing Camera Preset Positions

Use the Camera Preset page to view, add, edit, copy, or delete camera preset records.

➤ **To view the camera presets, follow these steps:**

1. Select **Device Management**.
2. Select **Cameras**. The Cameras page displays.
3. Select a camera in the list and click **Presets**, which is a link to Camera Preset list page. The Camera Presets page as shown in Figure 101 displays.

Figure 101. Camera Presets page

Adding Camera Preset Positions

➤ **To configure the camera's preset positions, follow these steps:**

1. Select **Device Management**, and then **Cameras**.
2. Select a camera from the list and click **Presets**, which is a link to Camera Preset list page. This displays only the presets for the selected camera.
3. Select **Camera Presets**. The Configure Camera Preset list page as shown in Figure 101 on page 143 displays.
4. Select **Add Preset**. The Configure Camera Preset configuration page as shown in Figure 102 displays.

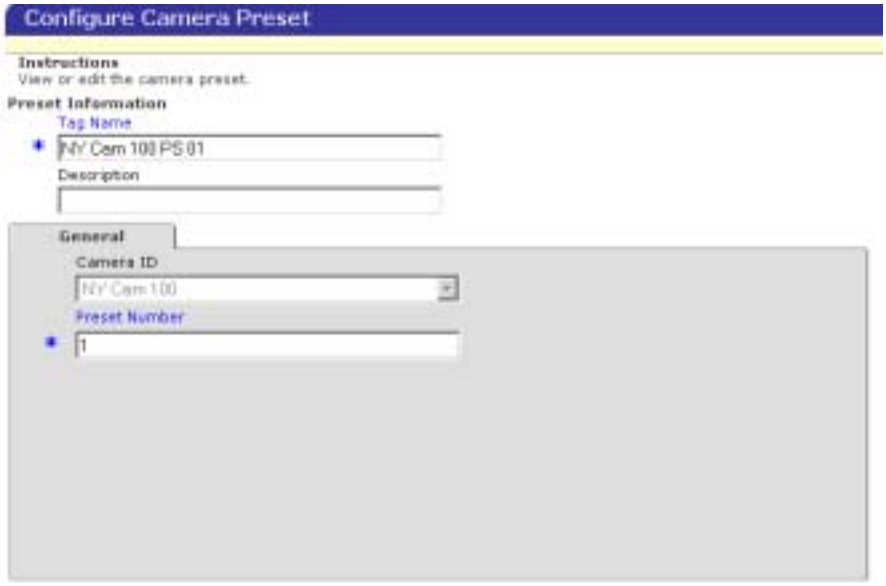


Figure 102. Configure Camera Preset page

5. Enter the information described in Table 63 to identify the camera preset positions.
6. Click **Submit** to save the record.

Table 63 lists and describes the fields on the Configure Camera Preset page.

Table 63. Configure Camera Preset fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Camera ID		Use the Camera ID drop-down list to select the camera. Refer to *Configuring Cameras* on page 138 for more information about adding a camera.
Preset Number	✔	Enter the number assigned to the preset position.

Linking Cameras to DVRs

The Link Camera page is used to link the cameras with DVRs. The number of cameras is determined by the number of inputs, usually 32, and is configured using the Configure Digital Video Recorder page.

➤ **To link the cameras to the DVR device, follow these steps:**

1. Select **Device Management**.
2. Select **Digital Video Recorders.** The Digital Video Recorders page as shown in Figure 103 displays.

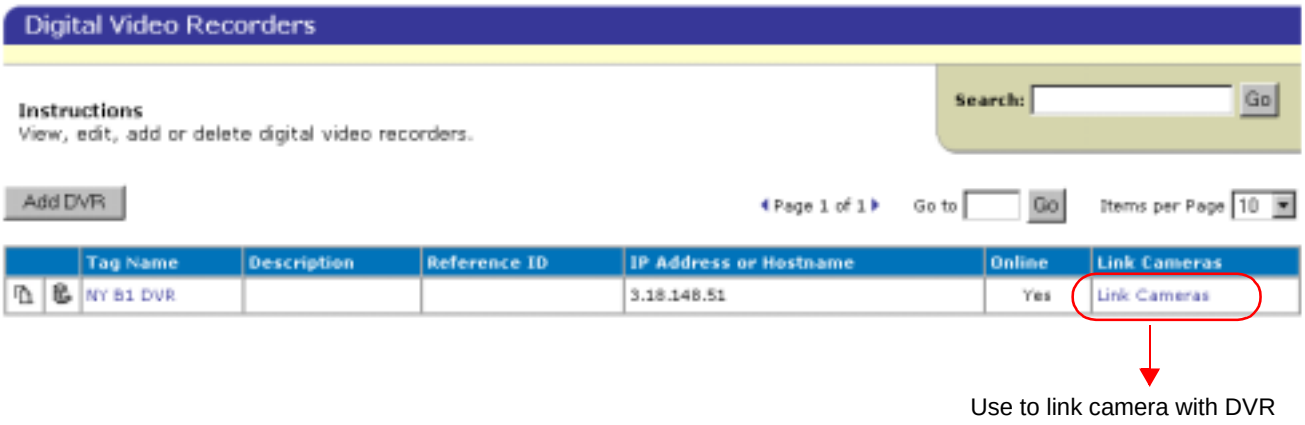


Figure 103. Digital Video Recorders page

3. Click **Link Cameras**. The Link Cameras page in Figure 104 on page 146 displays.

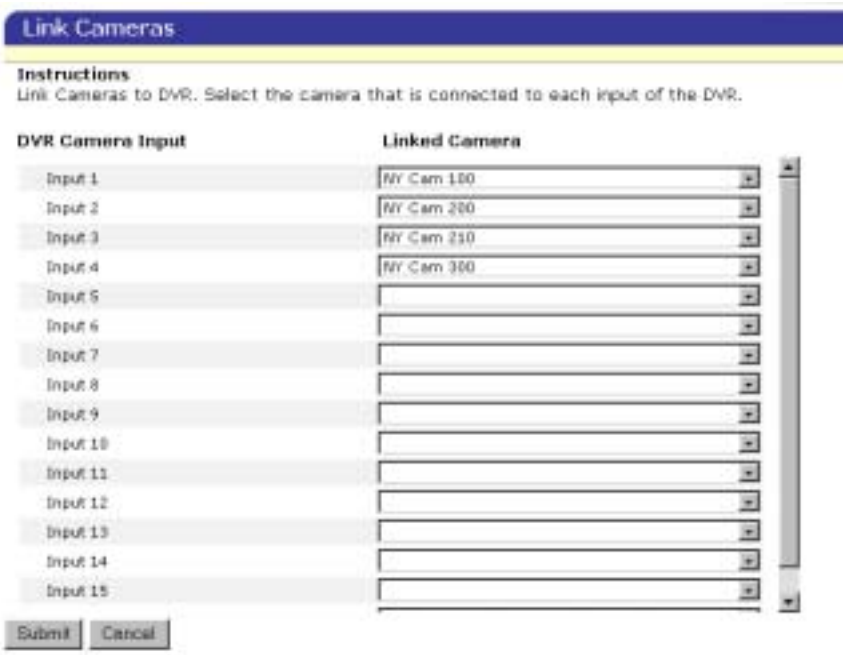


Figure 104. Link Cameras page

4. Use the drop-down lists to select the cameras associated with this DVR.
5. Click **Submit** when you are finished associating the cameras with DVR device.

Configuring Analog Switchers

The Analog Switchers page is used to add a new analog switcher record, upload a configuration file, and identify the inputs and outputs.

Viewing Analog Switchers

➤ **To view the analog switcher records, follow these steps:**

1. Select **Device Management**.
2. Select **Analog Switchers.** The Analog Switchers page as shown in Figure 105 displays.

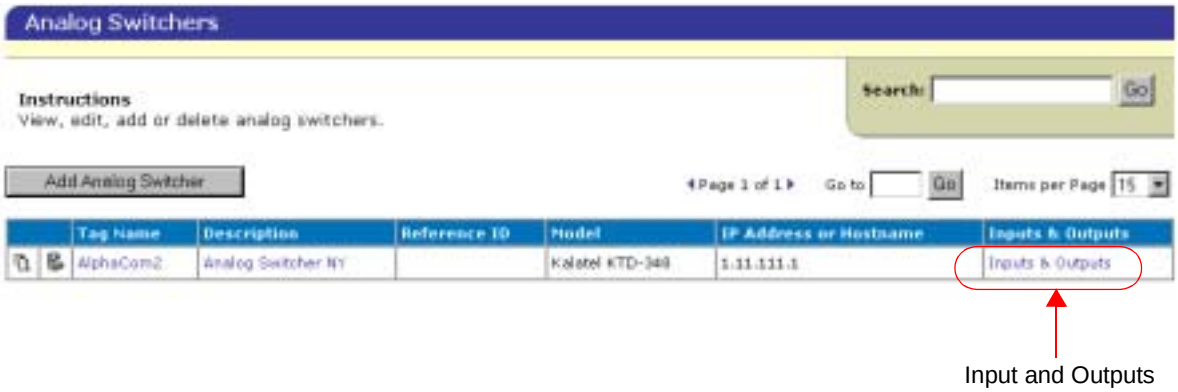


Figure 105. Analog Switchers page

Adding an Analog Switcher

Click icon to see demo.

➤ **To add an analog switcher, follow these steps:**

1. Select **Device Management**, and then **Analog Switchers**.
2. Click **Add Analog Switcher**. The Configure Analog Switcher page as shown in Figure 106 displays.

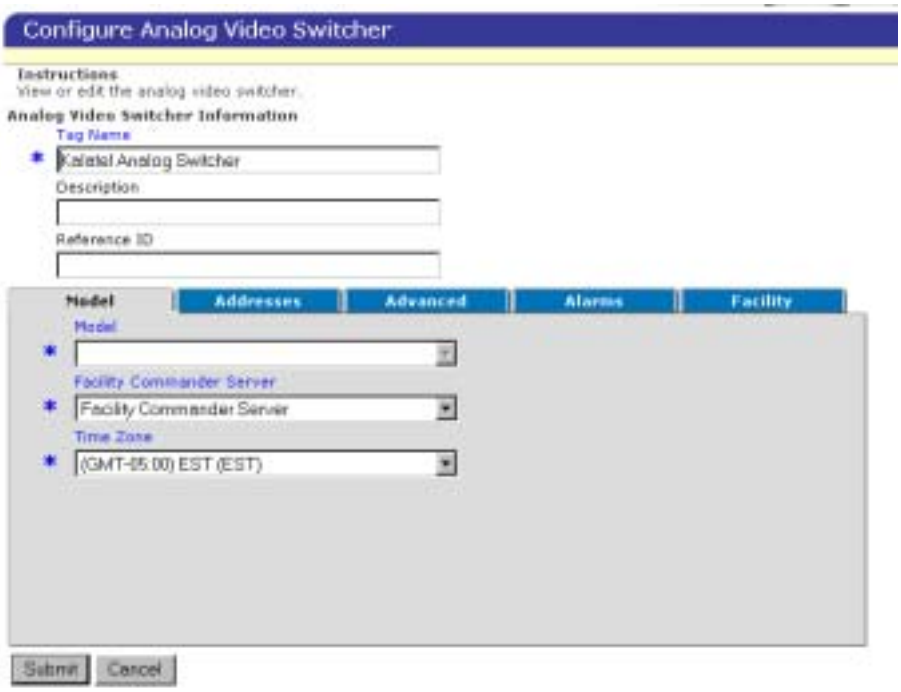


Figure 106. Configure Analog Switcher page

3. Enter the information described in Table 64. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 64. Configure Analog Switcher fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate an item to a blue print or wiring diagram. Use 1-20 characters.

Model Tab

Figure 107. Configure Analog Switcher — Model tab

5. Select the **Model** tab shown in Figure 107 and enter the information described in Table 65. A check mark indicates a required field. Continue to enter information on the tabbed pages

Table 65. Configure Analog Switcher fields and descriptions

Field Name	REQ	Description
Model	✔	Use the drop-down list to select the correct model name.
Facility Commander Server	✔	Use the drop-down list to select the Facility Commander server that controls communication with this analog switcher.
Time Zone	✔	Use the drop-down list to select the time zone for this analog switcher. This time zone displays on the Alarm Monitor and Event Monitor. The default time zone setting is GMT.

Addresses Tab

Figure 108. Configure Analog Switcher — Addresses tab

6. Select the **Addresses** tab shown in Figure 108 and enter the information described in Table 66. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 66. Configure Analog Switcher fields and descriptions

Field Name	REQ	Description
IP Address or Host Name	✔	Enter the host name or IP address of the analog switcher. The host name is case-sensitive.
Port	✔	Identify the TCP/IP port on which the analog switcher communicates with Facility Commander.

Advanced Tab

Figure 109. Configure Analog Switcher — Advanced tab

7. Select the **Advanced** tab shown in Figure 109 and enter the information described in Table 67. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 67. Configure Analog Switcher fields and descriptions

Field Name	REQ	Description
Status Polling Interval (seconds)	✔	Enter the number of seconds to wait before Facility Commander polls the analog switcher device. The default value is 60 seconds.
Reconnect Attempt Interval (seconds)	✔	Enter the number of seconds to wait before trying to reconnect to the Facility Commander server. The default value is 30 seconds.

Alarms Tab

Figure 110. Configure Analog Switcher — Alarms tab

8. Select the **Alarms** tab shown in Figure 109 and enter the information described in Table 68. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 68. Configure Analog Switcher fields and descriptions

Field Name	REQ	Description
Analog Switcher Offline		Use the drop-down list to select the appropriate alarm indicating when the analog switcher is offline.

Facility Tab

Figure 111. Configure Analog Switcher — Facility tab

9. Select the Facility tab shown in Figure 111 and enter the information described in Figure 69. A check mark indicates a required field.

Table 69. Configure Analog Switcher fields and descriptions

Field Name	REQ	Description
Assigned To		Displays the name of the facility where this graphic display is currently assigned. Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key, and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Configuring CCTV Monitors

CCTV Monitors are used to display video from cameras connected to analog switchers. Use the CCTV Monitors page to view, add, edit, copy, or delete CCTV Monitor records.

Refer to the following sections:

- *Viewing CCTV Monitors*
- *Adding CCTV Monitors* on page 155

Viewing CCTV Monitors

➤ **To view CCTV monitors, follow these steps:**

1. Select **Device Management**.
2. Select **CCTV Monitors**. The CCTV Monitors page as shown in Figure 112 displays.

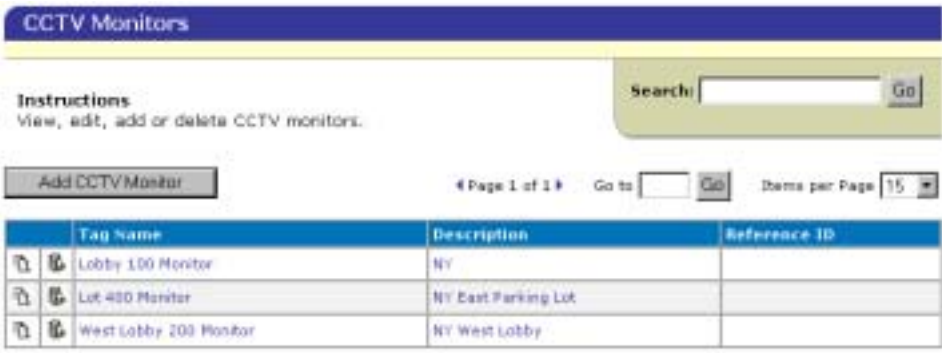


Figure 112. CCTV Monitors page

Adding CCTV Monitors

Click icon to see demo.

➤ **To configure CCTV monitors, follow these steps:**

1. Select **Device Management** and then select **CCTV Monitors**. The CCTV Monitors page displays.
2. Click **Add CCTV Monitor** and the Configure CCTV Monitor page as shown in Figure 113 displays.

Figure 113. Configure CCTV Monitor page

3. Enter the information described in Table 70. A check mark indicates a required field.
4. Click **Submit** to save the record.

Table 70. Configure CCTV Monitor fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate an item to a blue print or wiring diagram. Use 1-20 characters.

Table 70. Configure CCTV Monitor fields and descriptions (Continued)

Field Name	REQ	Description
Facility		
Assigned To		Displays the name of facility or facilities where this item is currently assigned. Items can belong to more than one facility. This is a read-only field.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Associating Analog Switcher Devices

Click icon to see demo.

Use the Analog Switcher Inputs and Outputs page to associate the analog switcher with cameras and monitors. The information can be added manually or by loading a configuration file.

Kalatel provides a utility program to generate an XML file, which contains camera and monitor records.

➤ **For instructions on how to import this file, follow these steps:**

1. Select **Device Management**.
2. Select **Analog Switchers.** The Analog Switchers page shown in Figure 105 displays.
3. Click the appropriate **Inputs & Outputs** link on the list page. The Analog Switcher Inputs and Outputs page shown in Figure 114 displays.

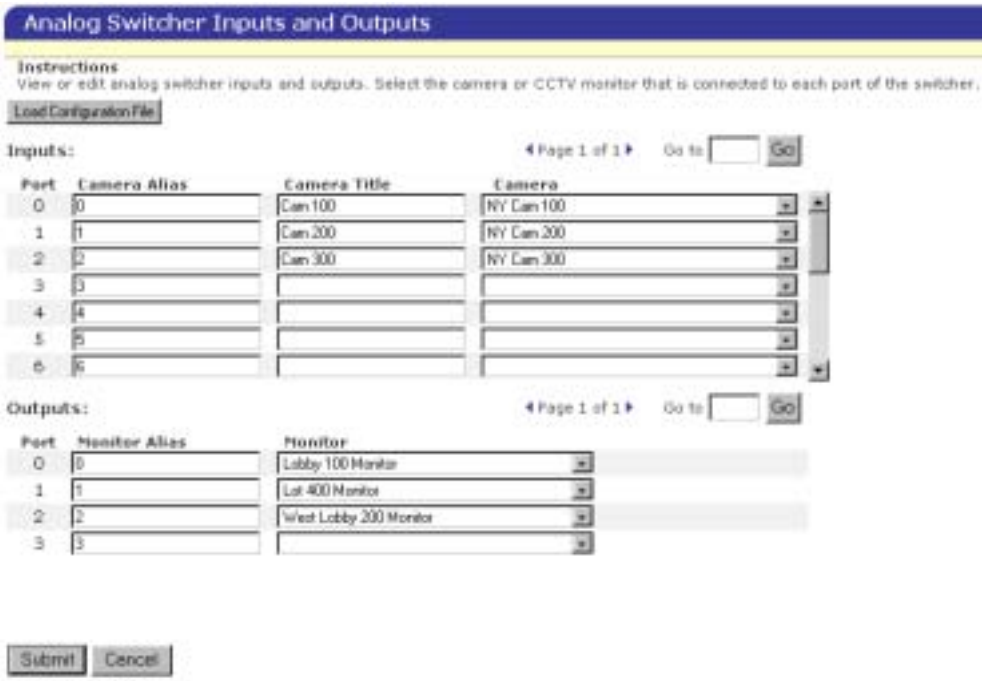


Figure 114. Analog Switcher Inputs and Outputs page

4. Click **Load Configuration File**. The Inputs and Outputs File Upload page shown in Figure 115 displays.

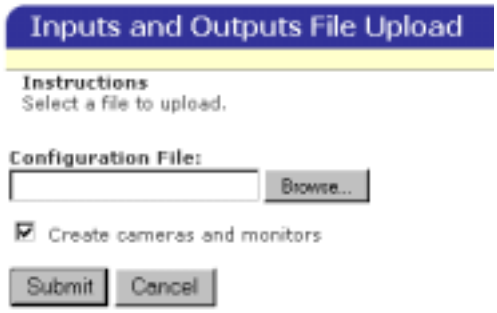


Figure 115. Inputs and Outputs File Upload page

5. Enter the directory path in the Configuration File field or use the **Browse** button to navigate to the directory folder where the file is stored. Select the file and click **OK**.
6. Select the **Create cameras and monitors** check box, which is the default setting.
7. Click **Submit** to generate the camera and monitor records and enter the records in the database. The Analog Switcher Inputs and Outputs page displays to allow the operator to make additional changes.
   - If any changes are made, click **Submit** again to save the edited records. Click **Cancel** to end the task and delete the camera and monitor records. If another page is accessed, these records remain in the database and will need to be removed manually.

Table 71 lists and describes the elements and descriptions.

Table 71. Analog Switcher Inputs and Outputs elements and descriptions

Field Name	REQ	Description
Inputs		
Port		Identifies the port number. The number of ports is dependent on the switcher model.
Camera Alias		Identifies the camera alias. This is assigned automatically by the configuration file.
Camera Title		Displays a camera title. This is assigned automatically by the configuration file.
Camera		Use the drop-down list to select to select the camera, if you want to change the camera assignment.
Outputs		
Port		Identifies the monitor port number.
Monitor Alias		Identifies the monitor alias.
Monitor		Use the drop-down list to select the monitor to associate with the camera.

Troubleshooting Steps

This section describes procedures to troubleshoot Facility Commander if you are experiencing problems with video. If these steps do not resolve the problem, contact Customer Support for assistance.

Configuration

Table 72. Configuration Troubleshooting Tips

Step	Action:	
1.	• Verify the client computer “hosts” file contains an entry for the Facility Commander host name and the Remote Media Server host name, if applicable. If you are using DNS for all machines, this does not apply. • Use the **`hostname`** command (Windows, Linux, and AIX).	
2.	Verify the DVR is plugged in and is recording.	
3.	• Verify the Facility Commander license file includes video and camera capabilities. If you are unsure, contact Customer Support to review the license.	
4.	Review the DVR page to check the following items:	
	Model Tab	Verify the correct model has been chosen, such as the Kalatel DVMRe-16CT. Confirm this DVR is associated with the correct server.
	Address Tab	Verify the correct IP Address, Port, and RS-485 Address have been entered. (Also, verify this information on the DVR itself.)
	Password Tab	If an Ethernet password was defined in the DVR, the same password must be entered on the Password tab.
5.	• DVRs can be connected to the Facility Commander server or to a Remote Media Server. If the DVR is connected to a Media Server, verify the **Media Server Only** check box on the Facility Commander page is selected. • Verify the Remote Media Server is running.	
6.	Refer to the following sections to continue troubleshooting the problem: • *Configuration* on page 159 • *Client Path Settings* on page 160 • *Communication Failure* on page 160	

Client Path Settings

Facility Commander uses Window DLL files, which codes and decodes video streams, to display video.

- On the client computer, the Kalatel DLL file is named: **`NativeADV601Codec.dll`**
- The DLL file resides in: **`C:\Program Files\FacilityCommanderClient\Resources`**.

The Client system path must be able to find the DLL file, which is created during the installation process.

➤ **To verify the path, follow these steps:**

1. From the **Start** menu, select **Settings**, **Control Panel**, and then **System**.
2. Select the **Advanced** tab.
3. Click **Environment Variables**.
4. In the System Variables group, confirm the path statement contains the following entries:

   `C:\Program Files\FacilityCommanderClient`

   `C:\Program Files\FacilityCommanderClient\resources`

5. If these entries do not exist, click **Edit**. The New System Variable window displays.
   - Enter the **Variable Name**: Path
   - Enter the **Variable Value** identified in Step 4.
   - Click **OK**.
6. Click **OK** twice to close the Properties windows.

Communication Failure

Using the Alarm Monitor, check for a DVRComm Failure Alarm.

➤ **If an alarm exists, follow these steps:**

1. Try to ping the DVR. If the ping command fails, verify the IP address, IP address mask, and gateway settings on the DVR are correct. Refer to the vendor's documentation for instructions.
2. Verify the DVR is plugged in and is recording.
3. Try turning the power to the DVR on and off.
4. If the DVR is a Kalatel Triplex, you can use a Web browser to reset it.

   a. Use the IP address of the DVR to construct the following URL:

   `http://DVR IP Address/index.ssi`

   b. Select **Configure**, then **Reboot**.
5. Try to ping the DVR again. If the ping command is successful, use the Alarm Monitor to reset the DVRCommFail Alarm.

Chapter 7. Using the Video Viewer

This chapter describes how to use the Video Viewer to view live and recorded video. This chapter also includes instructions to take snapshots, select cameras, and search for video clips.

In this chapter:

Overview on page 162
Navigating the Video Viewer on page 164
Controlling Cameras on page 167
Viewing Live Video on page 168
Viewing Recorded Video on page 169
Searching for Video on page 170
Customizing the Video Viewer on page 174

Overview

The Video Viewer allows operators to view live video, select and control any camera, retrieve a marked video clip, or direct cameras to a preset position.

For cameras with PTZ (Pan/Tilt/Zoom) capabilities, you can use the mouse to control movement. This feature is not available if another operator has control of the camera. Refer to *Controlling Cameras* on page 167 for more information.

When an alarm is generated with an associated video clip, a video icon displays on the Alarm Monitor or Event Monitor, if configured to do so. Click the video icon to launch a Video Viewer to display the video clip of the alarm event. Refer to *Tagging Video Events for Access Points* on page 180 for more information.

The Graphics Viewer can be used to launch a Video Viewer from symbols on graphic displays. Refer to *Issuing Commands* on page 338 for more information.

Automatically Launch by Alarm Priority

In addition, you can configure Facility Commander to automatically launch a Video Viewer when an alarm event occurs with associated video. Each time an alarm event occurs within the specified priority range, the Video Viewer launches and displays both live video and the recorded video clip of the event.

To configure:

- Use the Configure System Parameters page to identify the priority range, which determines when the Video Viewer launches automatically. Refer to *System Parameters* on page 56 for more information.
  - The priority range is from 1-to-500. Every alarm within the specified priority range will cause the Video Viewer to launch automatically. If a range is not specified, the Video Viewer will not launch automatically.
- Use Event Action Mapping to associate the alarm event and video tagging instructions, which include camera presets, camera preset with video tagging, and video tagging. Refer to *Tagging Video Events for Access Points* on page 180 for more information.
- Identify the workstations where you want the Video Viewer to launch automatically when an alarm event occurs. Refer to *Workstations* on page 51 for more information.
- Open the Alarm Monitor to display alarm activity. If the Alarm Monitor is not opened, the Video Viewer does not automatically launch.

If a Video Viewer is already displaying video from the associated camera, an additional Video Viewer will not launch. Also, a maximum of four video panes will automatically display within the Video Viewer.

Multiple Camera Views

The Video Viewer allows you to view live and recorded video from different sources in multiple video panes. An operator can select two-up, four-up, nine-up, or sixteen-up views.

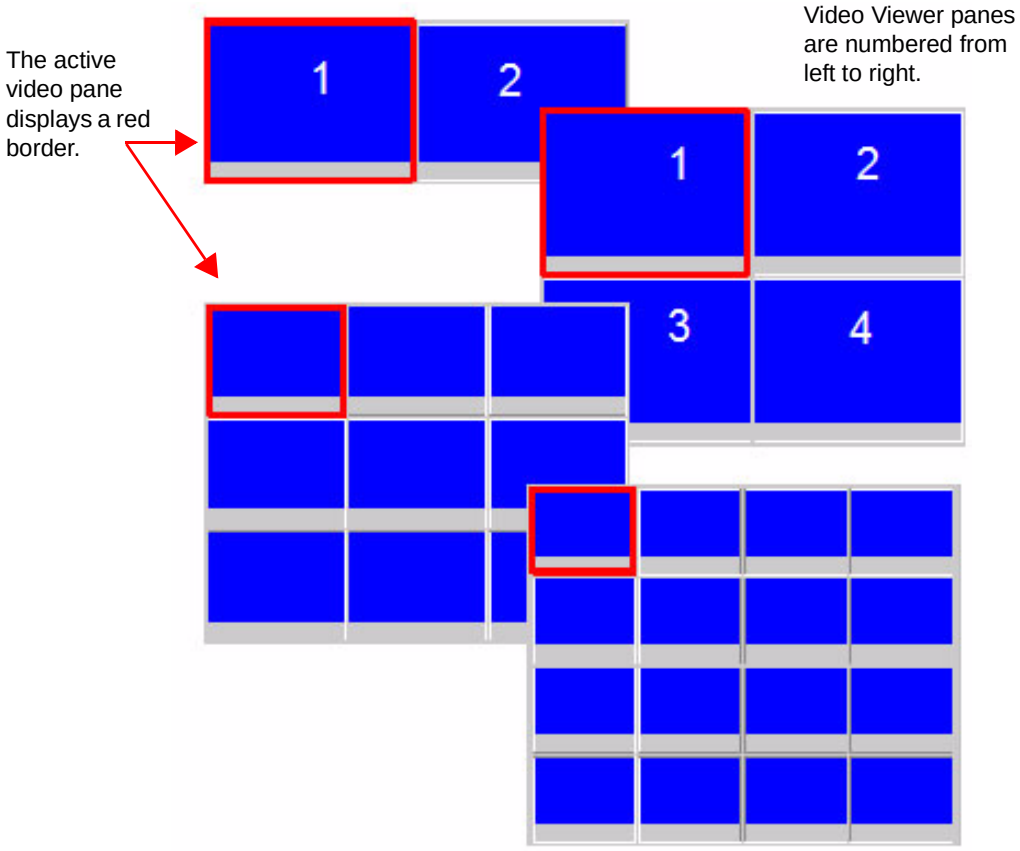


Figure 116. Illustration of multiple views in Video Viewer

An operator can open and arrange multiple Video Viewers on the computer monitor to provide a full-view of the premises. When the Video Viewers are closed and re-opened, they will open in the same position as before.

In addition, each Video Viewer can be given a customized title to identify the camera view. Refer to *Add Customized Window Title* on page 174.

Drag and Drop Cameras

Use this feature with cameras connected to DVRs. Operators can select cameras from the navigation pane, or from a map in the Graphics Viewer, and drag the camera to any pane in the Video Viewer. Live video displays in the selected pane.

Navigating the Video Viewer

➤ **To display the Video Viewer, follow these steps:**

1. Open the **Facility Commander Launcher** window.
2. Select **Launch** and **Video Viewer**, or select the Video Viewer icon from the Viewers toolbar. The Video Viewer window shown in Figure 117 displays.

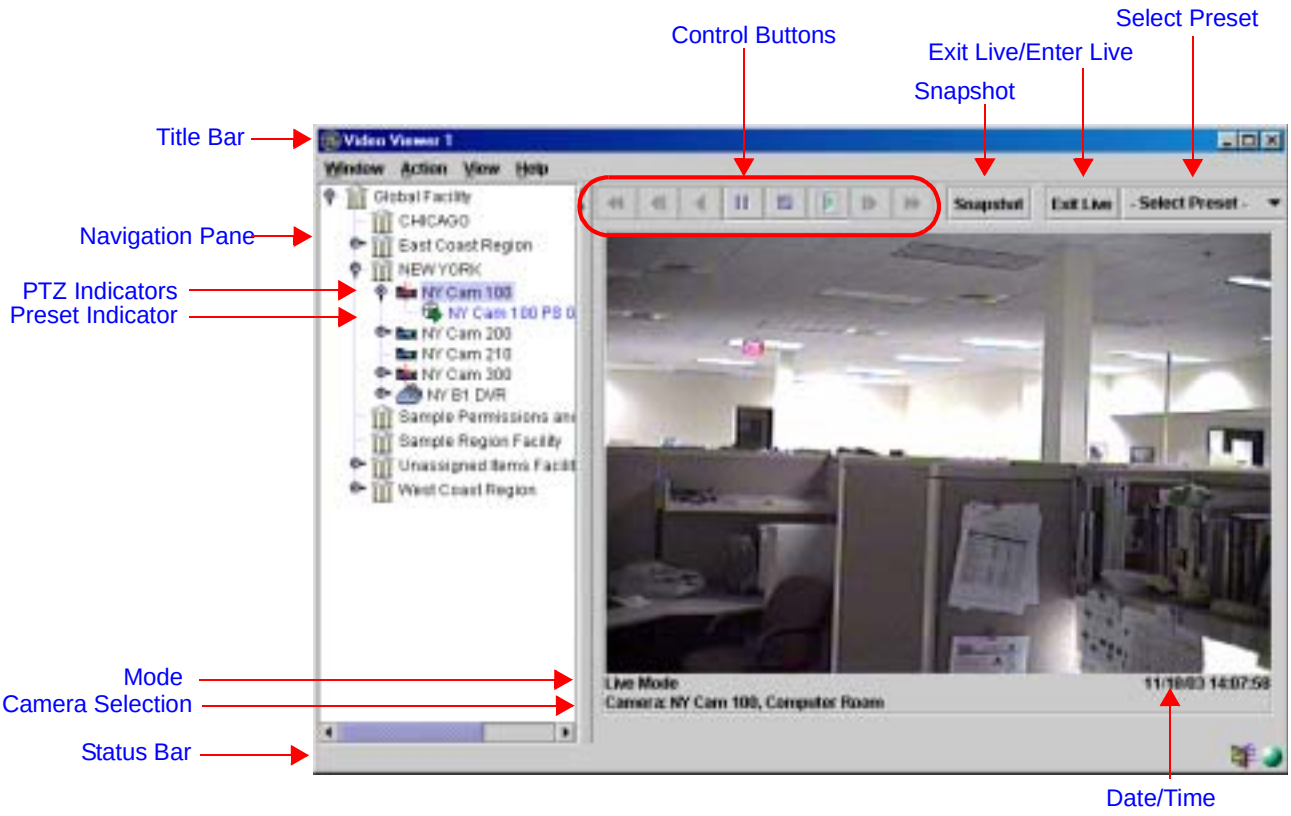


Figure 117. Video Viewer

Table 73 lists and describes the elements in the Video Viewer.

Table 73. Video Viewer elements and descriptions

Element	Description
Title Bar	Displays Video Viewer, window instance number, and custom window title. • Refer to *Managing Multiple Windows* on page 27 for more information about window instance numbers. • Refer to *Add Customized Window Title* on page 174 for instructions to add window titles.

Table 73. Video Viewer elements and descriptions (Continued)

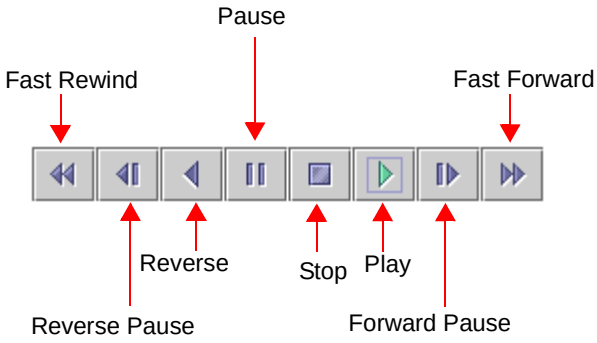
Element	Description
Navigation Pane	The Video Viewer displays the configured DVRs and cameras in a hierarchal structure. Each DVR is identified with the associated cameras and preset conditions. The DVRs are listed in alphabetical order using the Tag Name field. To change camera views, select a different camera in the navigation pane. The Video Viewer replaces the previous image with live video from the recent selection. This gives you the ability to switch from one view to another. The items that display in the navigation pane are determined by an operator's permission levels and contexts. Use the Window Filter to further limit the number of items in the navigation pane. Refer to *Managing Window Content* on page 175 for more information.
Control Buttons	
Snapshot	Click **Snapshot** to capture the current image (a single frame of video) in a JPG format. You can attach this image to an e-mail message for distribution. The images are stored on the Windows client in the directory `c:\Program Files\Facility Commander Client\Snapshot` The format of the file name is: `camera tag name.ddmmyy hhmmss.jpg` An example is: CAM Lobby.180303 072910.jpg
Exit Live/Enter Live	Use this button to toggle between live and recorded video. Click **Exit Live** then **Play** to view recorded video. Click **Enter Live** to return to live video images.
Select Preset	Use the drop-down list to select the preset position of the current camera you want to view. The camera preset positions display in alphabetical order. This option displays in **Live** mode only.
Select Clip	Use this to select a video clip to review. This option displays in **Recorded** mode only.
Mode	Displays **Live Mode** or **Recorded Mode**. Use the **Exit Live** or **Enter Live** button to switch from one mode to another.

Table 73. Video Viewer elements and descriptions (Continued)

Element	Description
Camera Selection	Identifies the current, or active, camera that is sending video to the Video Viewer. The camera label identifying the camera is comprised of the tag name and description. • From the **View** menu, select **Tag Name**. A check mark indicates the tag name is visible on the Video Viewer. - Clear the **Tag Name** check box if you do not want to display the tag name (default setting). • From the **View** menu, select **Description**. A check mark indicates the description is visible on the Video Viewer (default setting). - Clear the **Description** check box if you do not want to display the description. Refer to *Controlling Cameras* on page 167 for more information.
Tag Name	Displays tag name.
Description	Displays a description.
PTZ Indicators 	If the camera has PTZ capabilities, a red line displays across the camera icon in the navigation pane. Use the mouse to control the camera functions. The cursor changes to a “hand” when you move the mouse over the video window. • Use the left button to control the pan and tilt functions. Move the mouse up or down to tilt the camera. Move the mouse left or right to pan the camera. • Use the right button to control the zoom functions. Move the mouse up to zoom in (larger image) and down to zoom out (smaller image).
Preset Indicator 	Displays this icon in the navigation pane when the camera has preset positions.
Date/Time	Displays the current date and time when you are in the **Live** mode. When you are in **Recorded Mode**, the date and time of the video event display. This is the DVR’s time zone.
Select Preset	Use the drop-down list to select a preset position for a camera device. Refer to *Configuring Camera Preset Positions* on page 143 for more information.
Status Bar	
Error Messages	Displays error messages.
Window Filter Icon	Displays a window filter icon indicating the list of items in the navigation pane has changed. The contents of the list in the navigation pane are determined by which Facility Commander facilities are selected. When all facilities are selected, the icon does not display on the status bar. Refer to *Managing Window Content* on page 175.

Table 73. Video Viewer elements and descriptions (Continued)

Element	Description
Server Connection Indicator	Displays an icon indicating if the system with the Video Viewer is connected to the Facility Commander server. • Green indicates the system is communicating with the server. • Red indicates the system is no longer communicating with the Facility Commander server.

Controlling Cameras

This section describes how to view live video, recorded video, and use Event Action Mapping to control the camera and capture video.

Live Video

An operator selects a camera from the navigation pane and the Video Viewer displays live video from that camera. If that camera has pan/tilt/zoom capabilities, only one operator can control the camera.

When an operator attempts to control the camera in use by another operator, a message displays stating: **PTZ device currently in use**.

After thirty seconds of inactivity, the lock on the camera device is released so that another operator can use the camera and this message displays: **PTZ device has been released**. The messages display in the status bar.

Recorded Video

Multiple operators can view recorded video simultaneously from the same DVR, but the recorded video will be from the same time base.

When an operator is viewing recorded video, click **Play** and the timeout is extended for an additional thirty seconds.

Event Action Mapping

Event Action Mapping contains two actions related to camera control: Camera Preset and Camera Preset with Video Tagging. These two actions take priority over any manual camera operation by an operator. As soon as the camera preset action has occurred, the operator can take control of the camera again.

Viewing Live Video

➤ **To view live video, follow these steps:**

1. Select a camera from the navigation pane and live video displays on the Video Viewer. Or, drag the camera icon to a pane in the Video Viewer to view live video.
   - To move a camera to a different preset position, click the preset name in the navigation pane.
   - If you are unable to view video using the Video Viewer, verify the DVR is set to Record mode.
2. If the camera has pan/tilt/zoom capabilities, use the mouse to control the viewing area.
   - Use the left button to control the pan and tilt functions. Move the mouse up or down to tilt the camera. Move the mouse left or right to pan the camera.
   - Use the right button to control the zoom functions. Move the mouse up to zoom in (larger image) and down to zoom out (smaller image).
3. To change to a different camera view, select a camera or preset position from the navigation pane. The Video Viewer displays video from the selected device.

Adjust the Camera Lens

The Video Viewer allows an operator to adjust the camera focus or iris setting.

- Use the focus feature to adjust the clarity of the object viewed in the Video Viewer or monitor.
- Use the iris feature to control the lens aperture, or opening.

➤ **To change the camera focus or iris, follow these steps:**

1. Select the camera from the navigation pane and live video displays on the Video Viewer.
2. From the **View** menu, select **Focus Near** to change the camera focus to the foreground. Select **Focus Far** to change the camera focus to the background.
   - Select again to increase the focus one increment, either near or far. Continue until the focus is satisfactory.
3. From the **View** menu, select **Iris Open** to increase the amount of light. Select **Iris Close** to decrease the amount of light.
   - Select again to increase the iris opening one increment (open or close). Continue until the lighting is satisfactory.

Viewing Recorded Video

➤ **To view recorded video, follow these steps:**

1. Select the camera from the navigation pane.
2. Click **Exit Live** to enter the **Recorded** mode of operation.
3. Use the **Select Clip** drop-down list to choose the video clip you want to view. The Video Viewer displays recorded video from the beginning of the event.
   - All control buttons are enabled. When **Stop** is selected, the video panel disappears. When **Play** is then selected, the video resumes playing at the time it was stopped.
4. Click **Enter Live** to return to **Live** mode.

View a Single Video Frame

The Video Viewer permits an operator to view recorded video, frame by frame. Refer to *Control Buttons* on page 165 to view each button.

➤ **To view a single video frame, follow these steps:**

1. Select the Video Viewer pane and select the camera from the navigation pane.
2. Use the control buttons to navigate to the portion of the clip you want to review.
3. Click **Forward Pause** to view a single frame. Continue to click to move the video forward one frame at a time.
   - Each click pauses the video for 30 seconds. After 30 seconds, the video automatically resumes.
4. Click **Reverse Pause** to view a single frame. Continue to click to move the video backward one frame at a time.

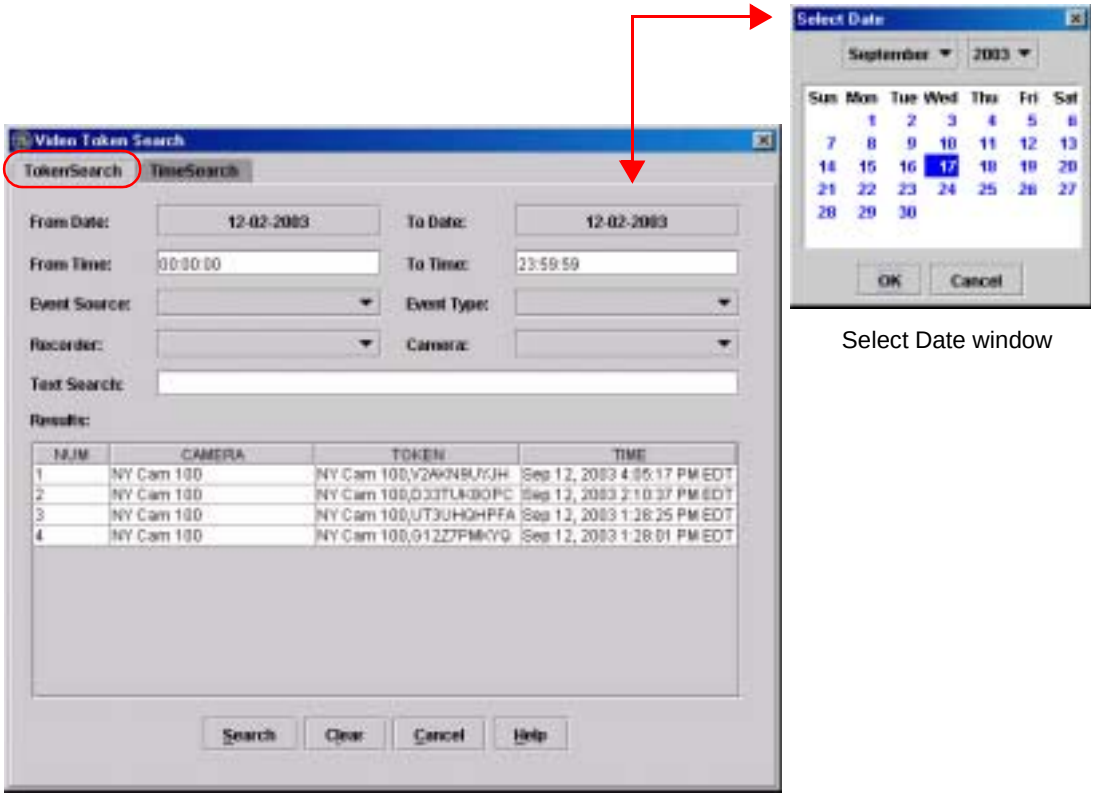
Searching for Video

Search by Token

When investigating alarm events, investigators or other operators may need to retrieve previously recorded video clips. Use the **Video Token Search** window to locate video clips stored on the DVR devices.

➤ **To search for previously recorded video clips, follow these steps:**

1. From the **Action** menu, select **Search Video Tokens.** The **Video Token Search** window shown in Figure 118 displays.



Select Date window

Figure 118. Video Token Search window with Select Date window

2. Enter the information described in Table 74 on page 171 to search for a video clip.
   - Search criteria includes: date, time, event source, event type, recorder, camera device, and text description. Enter multiple values to narrow the search criteria to locate video clips.
3. Click **Search**. The number of matches found display in the Results pane. Double-click the item you want to view and the recorded video displays in the Video Viewer.
   - Click **Clear** to return to the default settings and remove any matches in the Results pane.
4. Click **Close** when you are finished viewing clips.

Table 74 lists and describes the Video Token Search window.

Table 74. Video Token Search window

Element	Description
From Date **To Date**	To search for a specific day, click the **Date** button to display the **Select Date** window shown in Figure 119 on page 172. • Use the drop-down lists to select the month and year to display the calendar month. • Click the day of the month to select the **From Date** and the **To Date**.
From Time **To Time**	To search for a specific time: • Type the time in the **From Time** field to begin the search. • Type the time in the **To Time** field to end the search. Use this format: HH:MM:SS.
Event Source	Use the drop-down list to select the event source, such as an access point, logical input, digital input, or camera device. Any video events matching this event source type display in the **Token** column.
Event Type	Use the drop-down list to select the event type associated with the event source, such as an Invalid Badge or Door Forced alarm. Any video events matching this event type display in the **Token** column.
Recorder	Use the drop-down list to identify the DVR device where the video event is stored. Any video events from the specified recorder display in the **Token** column.
Camera	Use the drop-down list to identify the camera device used to record the video event. Any video events from the specified camera display in the **Token** column.
Text Search	Use to enter the DVR token name identifying the video clip. The token name can be up to 50 characters.
Results	Displays the number of matches found, camera tag name, the camera tag and token name, and the time of the video event. Double-click the token name to play the recorded video.

Search By Date and Time

Investigators and other operators may want to view previously recorded video for a specific date and time, which is not necessarily when an alarm event occurs. Facility Commander allows you to retrieve recorded video from the DVR, which differs from retrieving only a marked video clip from an alarm event.

The Time Search window allows an operator to view recorded video by setting the play position using a slider. The result of moving the slider is dependent on the amount of recorded video on the device.

For example: If twenty days of recorded video is stored on the device, moving the slider to zero percent starts the recorded video at the beginning of the first day. Moving the slider to 99 percent starts the recorded video almost at the end of the twentieth day.

➤ **To search for recorded video, follow these steps:**

1. From the **Action** menu, select **Search Video Tokens**. The Video Token Search window shown in Figure 119 displays.

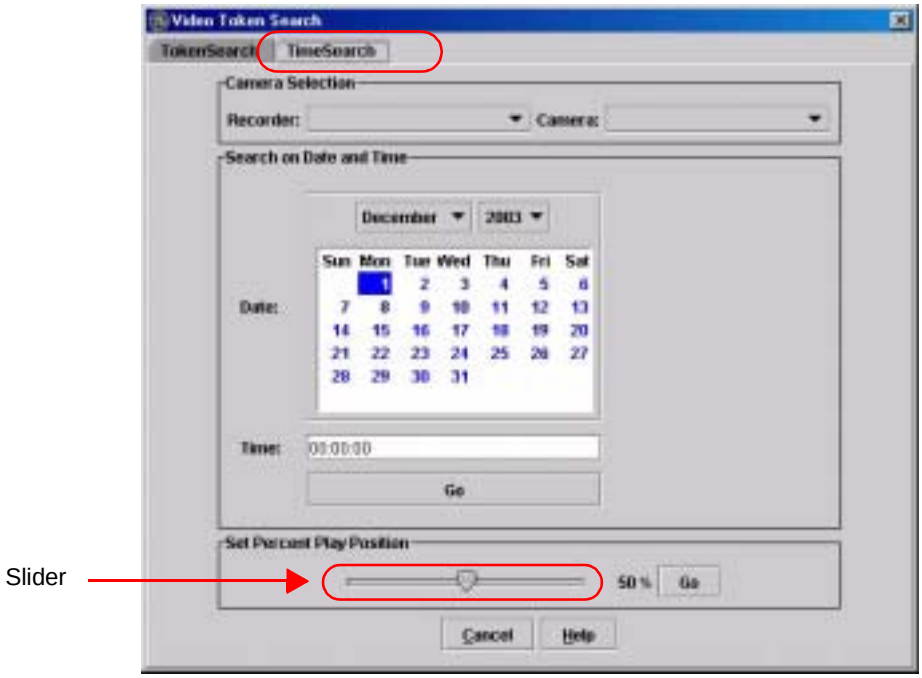


Figure 119. Video Token Search window —Time Search tab

2. Select the **Time Search** tab.
3. Enter the information described in Table 75 on page 173 to search for recorded video.
   - Search criteria includes: recorder, camera, date, and time. Enter multiple values to narrow the search criteria.
4. Click **Go**.

Table 75 lists and describes the Video Time Search window.

Table 75. Video Time Search window

Element	Description
Camera Selection	
Recorder	Use the drop-down list to identify the DVR device where the recorded video is stored.
Camera	Use the drop-down list to identify the camera device used to record the video.
Search on Date and Time	
Date	• Use the drop-down list to select the month. • Use the drop-down list to select the year.
Time	Enter the time. The format is: HH:MM:SS.
Set Percent Play Position	
Slider	Move the slider to increase or decrease the play position for recorded video. Zero percent represents the beginning of the recorded video and 100 percent represents the end.

Search by Play Position

➤ **To search for recorded video using the play position, follow these steps:**

1. From the **Action** menu, select **Search Video Tokens**. The Video Token Search window shown in Figure 119 on page 172 displays.
2. Select the **Time Search** tab.
3. Move the slider to increase or decrease the play position for recorded video. Zero percent represents the beginning of the recorded video and 100 percent represents the end.
4. Click **Go**.

Customizing the Video Viewer

The Video Viewer displays one viewer pane, tag name, and description as the default settings. However, an operator can view multiple panes, add a window title, and remove the tag name or description. Refer to the following sections:

- *Add Customized Window Title*
- *Managing Window Content* on page 175
- *Display Camera Identification* on page 175
- *Display Additional Video Panes*

Add Customized Window Title

The customized window title is applied to a specific instance of a Video Viewer. This means when an operator assigns a window title to the first Video Viewer opened, the title always displays in the title bar. However, when an operator opens a second Video Viewer, the title does not display.

If an operator opens four Video Viewers as part of their daily routine, each Video Viewer can be assigned a window title. The Video Viewers can be arranged on the computer monitor and each time the Video Viewers are opened, they will return to the same position and display the assigned window title.

➤ **To add a title to the Video Viewer, follow these steps:**

1. From the **View** menu, select **Window Filter**. The Window Filter window as shown in Figure 120 on page 175 displays.
2. In the **Custom Title** field, type the name to apply to this Video Viewer window. Maximum number of characters is 256.
3. Click **Save**.

Managing Window Content

➤ **To filter items from view in the navigation pane, follow these steps:**

1. From the **View** menu, select **Window Filter**. The window filter in Figure 120 displays.

Figure 120. Window Filter window

2. Use the **Custom Title** field to identify a title to display on the Video Viewer title bar. Maximum number of characters is 256.
3. Select the check boxes to indicate the items you want to display on the Video Viewer. A check mark indicates the item is selected.
   - Clear the check boxes to remove the items from view.
4. Click **Save**. The Video Viewer displays a window filter icon in the status bar indicating the list of items has changed.

Display Camera Identification

The Video Viewer displays the tag name and description for each camera.

➤ **To change the tag name or description, follow these steps:**

Tag Name

1. From the **View** menu, select **Tag Name**. A check mark indicates the tag name is visible on the Video Viewer.
2. Select **Tag Name** to clear the check box. The tag name does not display.

Description

1. From the **View** menu, select **Description**. A check mark indicates the description is visible on the Video Viewer.
2. Select **Description** to clear the check box. The description does not display.

Display Additional Video Panes

➤ **To display video in more than one video pane, follow these steps:**

1. From the **View** menu, select **2 Up** (or another number). The Video Viewer displays two video panes. The Video Viewer can display one, two, four, nine, or sixteen video panes.
   - When increasing the number of panes in the Video Viewer, the additional panes are blank or inactive.
2. To view video in an inactive pane, select the frame and then select the camera from the navigation pane.
   - The control buttons reflect the active pane.
   - Double-click any active frame to display a one-up view in a separate Video Viewer. If it is open already, the Video Viewer moves to the foreground.
3. To view recorded video, select the frame and select the camera from the navigation pane. Click **Exit Live**. If a video clip exists, use the **Select Clip** drop-down list to select the video clip.

Chapter 8. Event Action Mapping

This chapter introduces the Event Action Mapping, which allows you to select event sources and specify actions, such as moving cameras to preset positions or tagging video events and more.

In this chapter:

Overview on page 178
Viewing Event Action Mappings on page 179
Tagging Video Events for Access Points on page 180
Tagging Video Events for Intercom Calls on page 181
Activating Digital Outputs on page 182
Activating Digital Outputs on page 182
Events in Event Action Mapping on page 184
Actions in Event Action Mapping on page 188

Overview

Event Action Mapping is a powerful feature that allows system administrators to select event sources and program Facility Commander to take automatic actions. For example, when an alarm event is generated, cameras can move to preset positions, e-mails can be sent to designated personnel, and outputs can be activated.

Refer to the following sections for a list of available events and actions:

- *Events in Event Action Mapping* on page 184
- *Actions in Event Action Mapping* on page 188

Refer to the following sections for additional instructions:

- *Tagging Video Events for Access Points* on page 180
- *Tagging Video Events for Intercom Calls* on page 181
- *Activating Digital Outputs* on page 182
- *Sending Automatic E-mails* on page 183

Event Action Mapping allows you to associate event sources and event types to a specific action. An event action mapping is created by identifying the following items.

- **Event Source Types** represent the type of event sources that can generate actions, such as cameras, DVRs, and doors.
- **Event Sources** are individual devices or items that can trigger actions. Event sources are specific access points, cameras, DVRs, digital inputs, logical inputs, intercom and intrusion devices, and servers.
- **Event Types by Condition** is a combination of alarm state and alarm for the device.
- **Actions** represent the action or activity you want to take place when the combination of event source, type, and condition are met. Facility Commander allows you to lock or unlock doors, tag a video event, move a camera to a preset position, send e-mails, and more.

Depending on the actions you select, the action parameters display the appropriate drop-down list and text boxes. Select from these options:

- **Access control** to issue commands, such as locking or unlocking doors, or activating an output.
- Analog Video Switcher to
- **Intrusion** to issue commands, such as arming or disarming an area.
- **Intercom** to take an action, such as making a call to an intercom station.
- **E-mails** can be sent automatically to alert the appropriate staff members, so that they can respond to the alarm condition.
- **Video** to tag video events or direct cameras to preset positions. Refer to *Tagging Video Events for Access Points* on page 180 for instructions.

Viewing Event Action Mappings

Use the Event Action Mappings page to add, copy, or delete event action mapping records. These records cannot be edited. Instead, copy an existing record and make the necessary changes to create a new record.

➤ **To view event action mapping records, follow these steps:**

1. Select **Device Management**.
2. Select **Event Action Mappings**. The Event Action Mappings page shown in Figure 121 displays.

		Event Source	Event Type	Condition	Subsystems	Action	Parameter	Parameter	Parameter	Parameter
		AP 200101 NY COMPUTER ROOM	Door Forced Alarm	Set	Digital Video	Video Tagging	Destination: NY Cam 100			
		AP 200200 NY SHIPPING DOCK	Door Forced Alarm	Set	Access Control Manager	Activate Output	OutputDestination: DO 200116 NY FIRE SOUNDER			
		AP 200200 NY SHIPPING DOCK	Door Forced Alarm	Set	Digital Video	Video Tagging	Destination: NY Cam 100			
		AP 200300 NY LOBBY WEST	Door Forced Alarm	Set	Access Control Manager	Lock	Destination: AP 200101 NY COMPUTER ROOM			
		AP 200300 NY LOBBY WEST	Door Forced Alarm	Set	Digital Video	Video Tagging	Destination: NY Cam 100			
		NY B1 DVR	DVR Communications Alarm	Set	Mail Man	Email The Event	Header: DVR Alarm	To: Frank	From: Vincent	Subject: DVR Alarm in NY B1
		NY Lobby Bldg 1	Intercom Master Call Connected	Set	Intercom Manager	Dial Digits	OriginatingStationId: NY Lobby Bldg 1	DigitsToDial: 6156		

Figure 121. Event Action Mappings page

When a record is changed, such as changing the tag name, the event source name is automatically updated to reflect the new tag name. Also, if an event source is deleted, the event action mapping record is also deleted.

Tagging Video Events for Access Points

Click icon to see demo.

➤ **To tag a video event when an alarm occurs, follow these steps:**

1. Select **Device Management**, and then **Event Action Mappings**. The Event Action Mapping page shown in Figure 121 on page 179 displays.
2. Click **Add Event Action Mapping**. The Configure Event Action Mapping page as shown in Figure 122 displays.

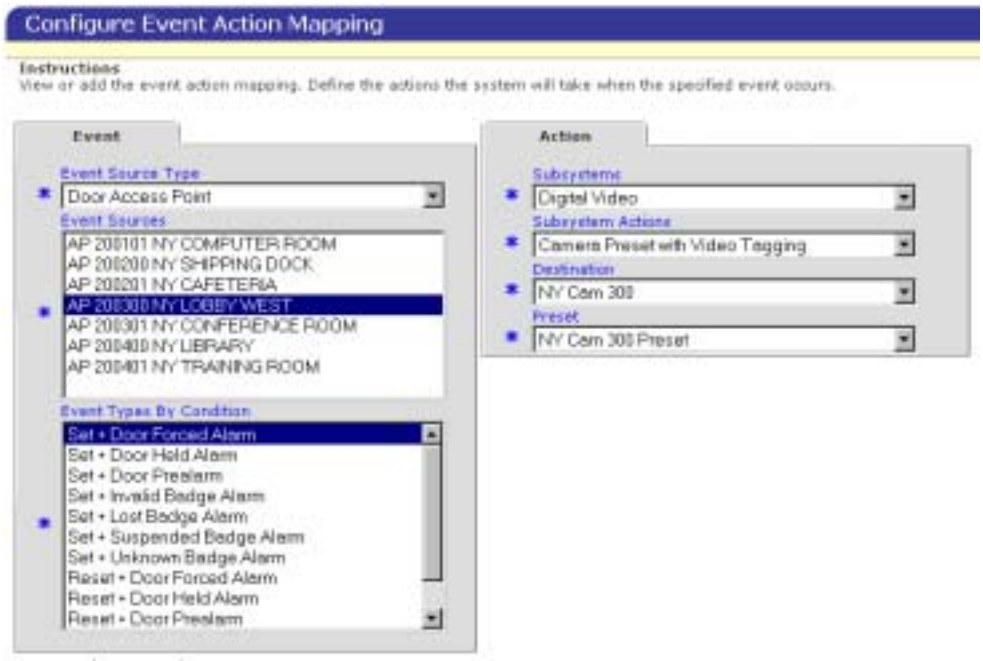


Figure 122. Configure Event Action Mapping page

3. Use the **Event Source Type** drop-down list to select the access point or device.
4. Use the **Event Sources** list to select one or more event sources. This list is populated with items based on the selected event source type. Press the **Ctrl** key while selecting multiple items.
5. Use the **Event Types By Condition** list to select one or more alarm conditions. Press the **Ctrl** key while selecting multiple items.
6. Use the **Subsystems** drop-down list to select **Digital Video**.
7. Select the appropriate action from the **Subsystem Actions** drop-down list.
8. Select a camera device from the **Destination** drop-down list. If the camera has preset positions, another drop-down list displays to select the preset positions.
9. Click **Submit** to save the record.

Tagging Video Events for Intercom Calls

➤ **To create an intercom event when an alarm occurs, follow these steps:**

1. Select **Device Management**, and then **Event Action Mappings**. The Event Action Mappings page displays as shown in Figure 121 on page 179.
2. Click **Add Event Action Mapping**. The Configure Event Action Mapping page as shown in Figure 123 displays.

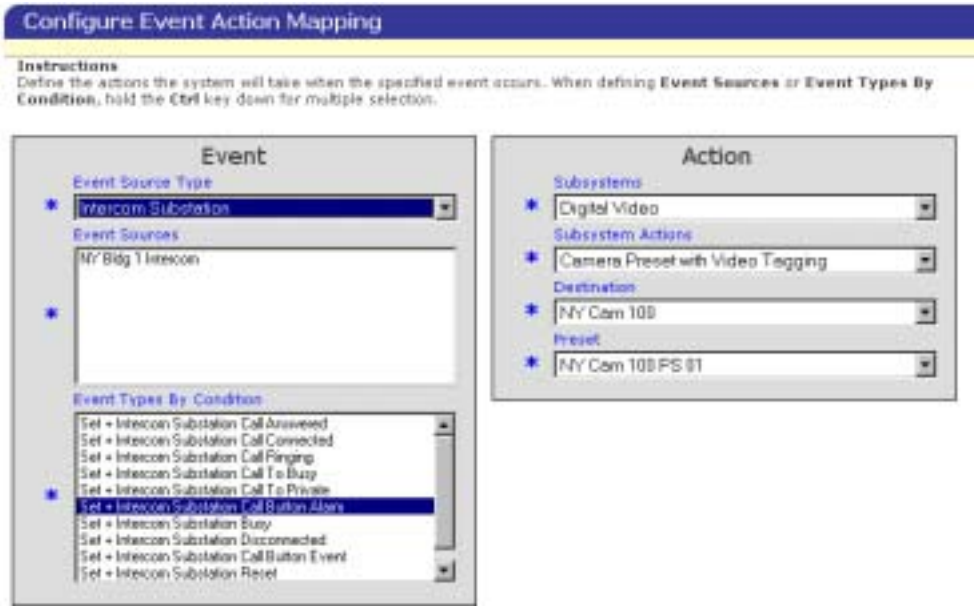


Figure 123. Configure Event Action Mapping page

3. Use the **Event Source Type** drop-down list to select the access point or device.
4. Use the **Event Sources** list to select one or more event sources. This list is populated with items based on the selected event source type. Press the **Ctrl** key while selecting multiple items.
5. Use the **Event Types By Condition** list to select one or more event types and alarm conditions. Press the **Ctrl** key while selecting multiple items.
6. Use the **Subsystems** drop-down list to select **Digital Video**.
7. Select the appropriate action from the **Subsystem Actions** drop-down list. The selections include:
   - **Camera Preset** to move a camera to a preset position.
   - **Camera Preset with Video Tagging** to move a camera to a preset position and mark a video clip.
   - **Video Tagging** to mark a video clip that can be retrieved later for investigation.
8. Select a camera device from the **Destination** drop-down list. If the camera has preset positions, another drop-down list displays to select the preset positions.
9. Click **Submit** to save the record.

Activating Digital Outputs

➤ **To configure Facility Commander to activate a digital output, follow these steps:**

1. Select **Device Management**, and then **Event Action Mappings**. The Event Action Mappings page shown in Figure 121 on page 179 displays.
2. Click **Add Event Action Mapping**. The Configure Event Action Mapping page as shown in Figure 124 displays.

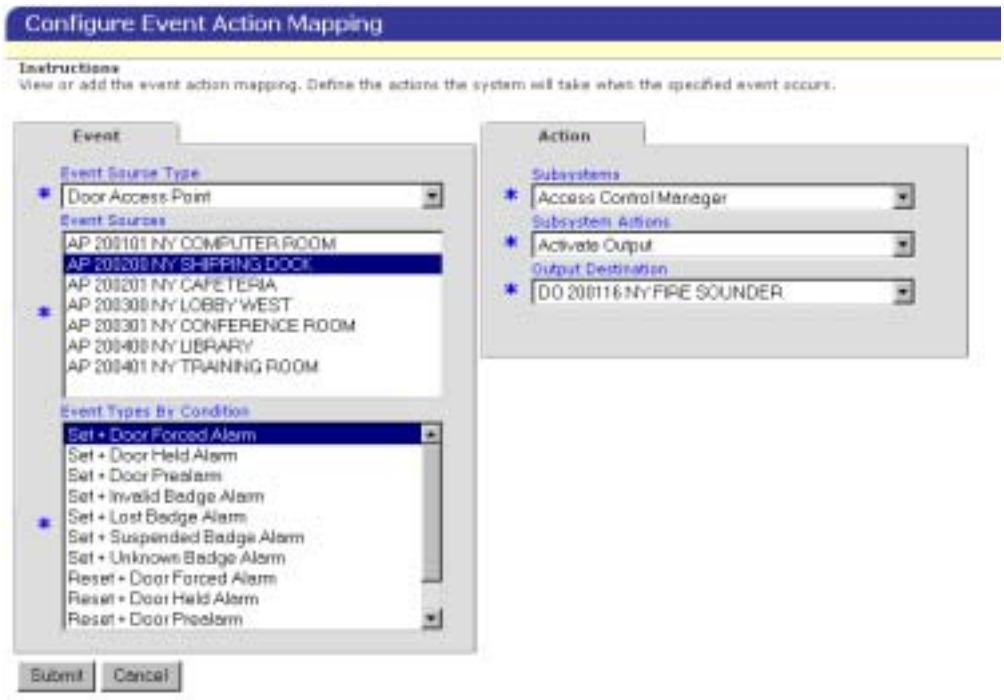


Figure 124. Configure Event Action Mapping page

3. Use the **Event Source Type** drop-down list to select the access point or device.
4. Use the **Event Sources** list to select one or more event sources. This list is populated with items based on the selected event source type. Press the **Ctrl** key while selecting multiple items.
5. Use the **Event Types By Condition** list to select one or more alarm conditions. Press the **Ctrl** key while selecting multiple items.
6. Use the **Subsystems** drop-down list to select **Access Control Manager**.
7. Select the appropriate action from the **Subsystems Actions** drop-down list. Depending on the selection, additional lists or fields may display. Refer to *Actions in Event Action Mapping* on page 188 for a complete list.
8. Click **Submit** to save the record.

Sending Automatic E-mails

➤ **To automatically send an e-mail when an alarm event occurs, follow these steps:**

1. Select **Device Management**, and then **Event Action Mappings**. The Event Action Mapping page displays as shown in Figure 121 on page 179.
2. Click **Add Event Action Mapping**. The Configure Event Action Mapping page similar to the one shown in Figure 125 displays.

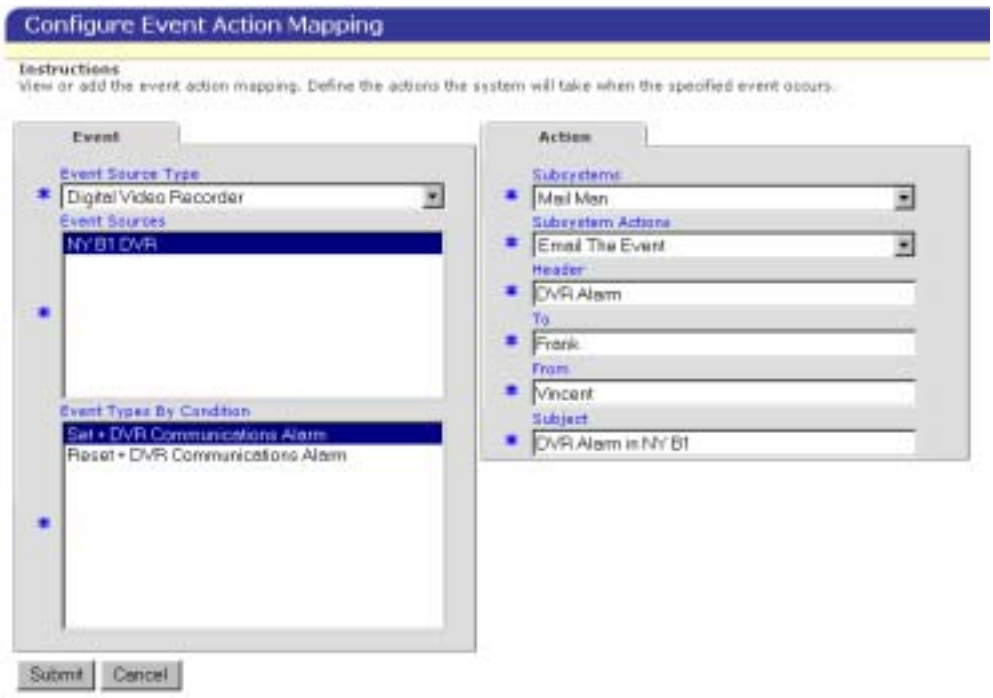


Figure 125. Configure Event Action Mapping page

3. Use the **Event Source Type** drop-down list to select the access point or device.
4. Use the **Event Sources** list to select one or more event sources. This list is populated with items based on the selected event source type. Press the **Ctrl** key while selecting multiple items.
5. Use the **Event Types By Condition** list to select one or more alarm conditions. Press the **Ctrl** key while selecting multiple items.
6. Use the **Subsystems** drop-down list to select **MailMan**.
7. Use the **Subsystems Actions** drop-down list to select **E-mail the Event**. Additional text boxes display to enter e-mail information.
8. Complete the required items: **Header**, **To**, **From**, and **Subject**.
9. Click **Submit** to save the record.

Events in Event Action Mapping

Table 76 lists and describes the fields on the Configure Mapped Event page.

Table 76. Configure Mapped Event fields and descriptions

Event Source	Event Type	Condition
Access Control	Access System Comm Failure	Set, Reset
Analog Switcher	Analog Switcher Offline	Set, Reset
Camera	Video Loss Alarm	Set, Reset
	Motion Detection Alarm	Set, Reset
Digital Input	Input Alarm	Set, Reset, Tamper
Digital Video Recorder	Digital Video Recorder Comm Fail	Set, Reset
External Media Server	Remote Media Server Comm Failure	Set, Reset
History Table Rollover	Table Rollover Event	Set
Intercom Exchange	Intercom Exchange Comm Failure Alarm	Set, Reset
	Intercom Exchange Reset Alarm	Set
	Intercom Exchange Reset Alarm Event	Set
Intercom Master Station	Intercom Master Call Answered	Set
	Intercom Master Call Connected	Set
	Intercom Master Call Ringing	Set
	Intercom Master Call To Busy	Set
	Intercom Master Call To Private	Set
	Intercom Master Busy	Set
	Intercom Master Disconnected	Set
	Intercom Master Reset	Set

Table 76. Configure Mapped Event fields and descriptions (Continued)

Event Source	Event Type	Condition
Intercom Substation	Intercom Substation Call Connected	Set
	Intercom Substation Call Ringing	Set
	Intercom Substation Call To Busy	Set
	Intercom Substation Call To Private	Set
	Intercom Substation Call Button Alarm	Set, Reset
	Intercom Substation Busy	Set
	Intercom Substation Disconnected	Set
	Intercom Substation Call Button Event	Set
	Intercom Substation Reset	Set
Intrusion Area	Intrusion Area Alarm Event	Set, Reset
	Intrusion Area Disarmed During Alarm	Set
	Intrusion Area Failed to Arm	Set
	Intrusion Area State Armed All Clear	Set
	Intrusion Area Armed and In Alarm	Set, Reset
	Intrusion Area Armed and In Alarm Event	Set, Reset
	Intrusion Area State Disarmed	Set
	Intrusion Area State Unknown	Set

Table 76. Configure Mapped Event fields and descriptions (Continued)

Event Source	Event Type	Condition
Intrusion DGP	Intrusion DGP Battery Low	Set, Reset
	Intrusion DGP Battery Missing	Set, Reset
	Intrusion DGP Battery Test Fail	Set
	Intrusion DGP Battery Test Start	Set, Reset
	Intrusion DGP Fuse Failure	Set, Reset
	Intrusion DGP Bypassed	Set, Reset
	Intrusion Main Panel Failure Alarm	Set, Reset
	DGP Offline Alarm	Set, Reset
	DGP Polled	Set, Reset
	DGP Siren Monitor Fail	Set, Reset
	DGP Tamper Alarm	Set, Reset
	DGP Tamper	Set, Reset
	Intrusion Keypad Offline	Set, Reset
Intrusion Input	Intrusion Input Alarm	Set, Reset
	Intrusion Input Alarm Event	Set, Reset
	Intrusion Input Bypassed	Set, Reset
	Intrusion Input Detector Dirty	Set, Reset
	Intrusion Input Detector Low Battery	Set, Reset
	Intrusion Input Fault	Set, Reset
	Intrusion Input Holdup at Night	Set, Reset
	Intrusion Input Tamper	Set, Reset
	Intrusion Input Tamper Alarm	Set, Reset

Table 76. Configure Mapped Event fields and descriptions (Continued)

Event Source	Event Type	Condition
Intrusion Keypad	Intrusion Keypad Bypassed	Set, Reset
	Intrusion Duress Alarm	Set, Reset
	Intrusion Duress	Set, Reset
	Intrusion Keypad Offline	Set, Reset
	Keypad Tamper Alarm	Set, Reset
	Keypad Tamper	Set, Reset
	Intrusion Keypad Inhibited	Set, Reset
Intrusion Panel	Intrusion Panel Burglar Alarm Cancelled	Set
	Intrusion Panel Code Entered	Set
	Intrusion Panel Duress Code Entered Alarm	Set, Reset
	Intrusion Panel Exit Fault	Set
	Intrusion Panel Offline Alarm	Set, Reset
	Intrusion Panel Tamper Alarm	Set, Reset
	Intrusion Panel Tamper	Set, Reset

Actions in Event Action Mapping

Table 77 lists and describes the fields on the Configure Mapped Event page.

Table 77. Configure Mapped Action fields and descriptions

Subsystem	Action	Parameter 1	Parameter 2
Access Control		**Destination**	**Duration**
	Unlock	Access Point	
	Unlock Duration	Access Point	seconds
	Unlock Permanent	Access Point	
	Lock	Access Point	
	Activate Output		
		Output Destination	**Duration**
	Activate Output Duration	Output	seconds
	Activate Output with No Reset	Output	
	Reset Output	Output	
		Input Destination	**Duration**
	Enable Input	Input	
	Disable Input	Input	
		Logical Input Destination	**Duration**
	Enable Logical Input	Logical Input	
	Disable Logical Input	Logical Input	
Analog Video Switcher		**Tag Name**	**Input Name**
	Switch Input to Output	Analog Switcher Tag Name	Input Name
		Output Name	
		Output Name	
Digital Video			
	Video Tagging	Camera	
	Camera Preset	Camera	Preset
	Camera Preset with Video Tagging	Camera	Preset

Table 77. Configure Mapped Action fields and descriptions

Subsystem	Action	Parameter 1	Parameter 2
Intercom		**Originating Station**	**Digits To Dial**
	Dial Digits	text	text
	Hang up	text	
		Originating Station	**Destination Station**
	Make Call	text	text
Intrusion		**Tag Name**	
	Area	Intrusion Area	
	DGP Battery Test	Target DGP Name	
	DGP Bypass	Target DGP Name	
	DGP Unbypass	Target DGP Name	
	Disarm Area	Intrusion Area	
	Input Bypass	Target Input Name	
	Input Unbypass	Target Input Name	
	Keypad Bypass	Target Keypad Name	
	Keypad Unbypass	Target Keypad Name	
	Panel Offline	Target Panel Name	
	Panel Online	Target Panel Name	
Mail		**Header**	**To**
	E-mail the Event	text	text
		From	**Subject**
		text	text

Chapter 9. Configuring Alarms

This chapter describes how to set up alarms that are generated by Facility Commander. It also describes how to assign alarm colors which apply to Picture Perfect, Secure Perfect, and Facility Commander alarms.

In this chapter:

Overview on page 192
Configuring the Alarm Monitor on page 193
Setting Alarm Colors on page 194
Creating Alarm Instructions on page 196
Creating Alarm Profiles on page 198

Overview

Alarms are used to notify an operator of specific incidents, such as someone presenting an Invalid Badge at a door or someone forcing a door open. Either one of these events represents an alarm type that may require further investigation.

There can be several sources of alarm conditions — Picture Perfect, Secure Perfect, and Facility Commander. Most of the alarms that are monitored will come from Picture Perfect or Secure Perfect systems.

Facility Commander generates these alarms:

- Access System Comm Failure
- Analog Switcher Offline
- DVR Communications Alarm
- Intercom Exchange Comm Failure
- Intercom Exchange Reset Alarm
- Intercom Substation Call Button Alarm
- Motion Detection Alarm
- Remote Media Server Comm Failure

Alarm instructions for the access control systems are defined in either the Picture Perfect or Secure Perfect systems, while alarm instructions for Facility Commander are defined in Facility Commander.

Pre-defined alarm responses are only defined in the access control systems and are available to Picture Perfect, Secure Perfect, and Facility Commander systems.

Configuring the Alarm Monitor

A system administrator should configure the following items to take advantage of all the Alarm Monitor features. Refer to the following checklist for the server system settings and other configuration settings.

✔	To configure Picture Perfect settings, refer to the *Picture Perfect Administration Guide* or Picture Perfect Help for instructions. • Alarm instructions are defined using **Messages**. • Alarm responses are defined using **Responses**. • Alarm priorities are defined using **Alarms**.
✔	To configure Secure Perfect settings, refer to the *Secure Perfect Administration Guide* or Secure Perfect Help for instructions. • Alarm instructions are defined using the **Alarm Instructions**. • Alarm responses are defined using the **Alarm Responses**. • Alarm priorities are defined using **Alarms**.
✔	To configure Facility Commander alarm settings, refer to the following sections or Facility Commander Help: • *Setting Alarm Colors* on page 194 • *Creating Alarm Instructions* on page 196

Synchronization

The Alarm Monitor in the access control system and Facility Commander are completely synchronized. This means when an alarm state changes, the change is reflected on both systems and when an operator from either the access control system or Facility Commander responds to an alarm that response is sent to both systems.

Setting Alarm Colors

Click icon to see demo.

The Facility Commander allows you to define alarm colors based on processing state to display alarm events on the Alarm Monitor. Each alarm event appearing on the Alarm Monitor can have a different foreground and background color based on the alarm processing state.

➤ **To change the alarm colors, follow these steps:**

1. Select **System Administration.**
2. Select **Alarm Colors**. The Select Alarm Color Scheme list page shown in Figure 126 displays.

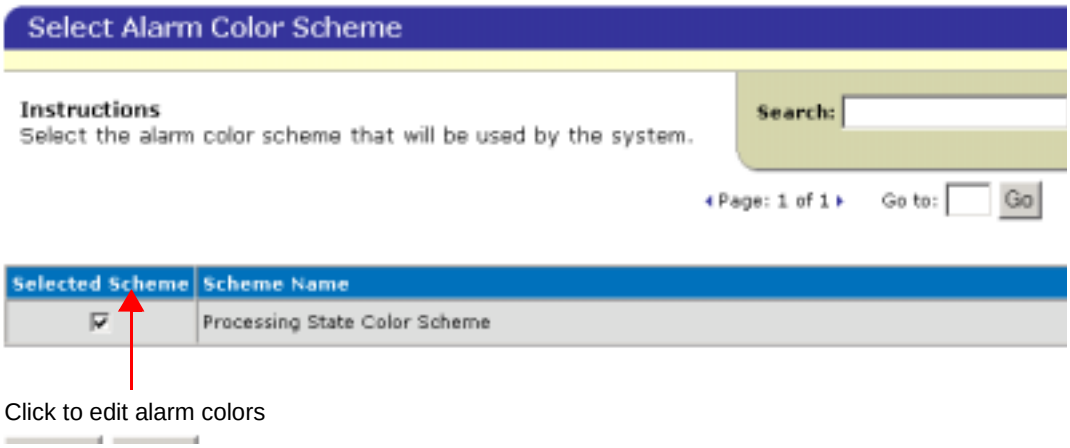


Figure 126. Select Alarm Color Scheme page

3. Click the **Processing State Color Scheme** link to change the alarm colors. The Edit Alarm Color Scheme page as shown in Figure 127 displays.

Figure 127. Edit Alarm Color Scheme page

Table 78 lists and describes the items Select Alarm Color Scheme page.

Table 78. Edit Alarm Color Scheme page elements

Field Name	Description
Processing State	The processing state includes: active, bumped, notified, remote, pending, completed, removed, and purged. Use the **Selection Colors** to define the colors when an alarm is selected on the Alarm Monitor client application. Use **Default Colors** to define the colors for any alarm event that is not included in the list of alarm processing states.
Foreground Color	This represents the color of the text in the alarm entry displayed on the Alarm Monitor. Use a color definition that is easy to view.
Background Color	This represents the background color of the alarm entry displayed on the Alarm Monitor. Use a color that is compatible with the foreground color so the alarm entry is easy to view.

4. Use the drop-down lists to select the foreground and background colors for each type of alarm event. Use the **Tab** key to move from field to field.
   - Click **Reset** to restore the colors to the previously saved configuration.
5. When you are finished, click **Submit** to save your changes.

Creating Alarm Instructions

Click icon to see demo.

Use the Configure Alarm Instruction page to copy or delete alarm instruction records.

➤ **To create custom alarm instructions, follow these steps:**

1. Select **Device Management**.
2. Select **Alarm Instructions**. The Alarm Instructions list page shown in Figure 128 displays.

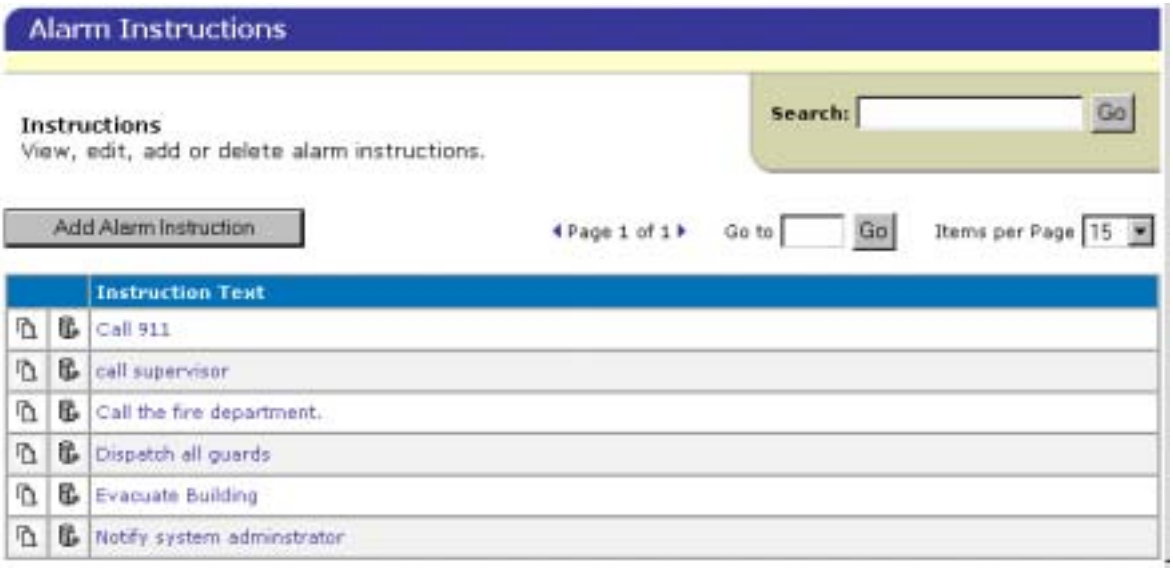


Figure 128. Alarm Instructions page

3. Click **Add Alarm Instruction** and the Configure Alarm Instruction page shown in Figure 129 displays.

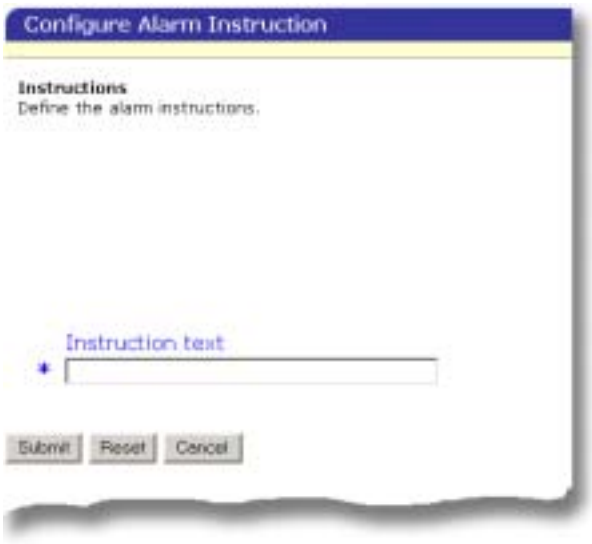


Figure 129. Configure Alarm Instruction page

4. Enter between 1-100 characters to create a customized message. This message will display in the Alarm Response window.
5. Click **Submit** to save the record.

Creating Alarm Profiles

Click icon to see demo.

Use the Alarm Profiles page to view, import, copy, add, and delete alarm profile records.

➤ **To view the alarm profiles, follow these steps:**

1. Select **Device Management**, and then **Alarm Profiles**. The Alarm Profiles page shown in Figure 130 displays.

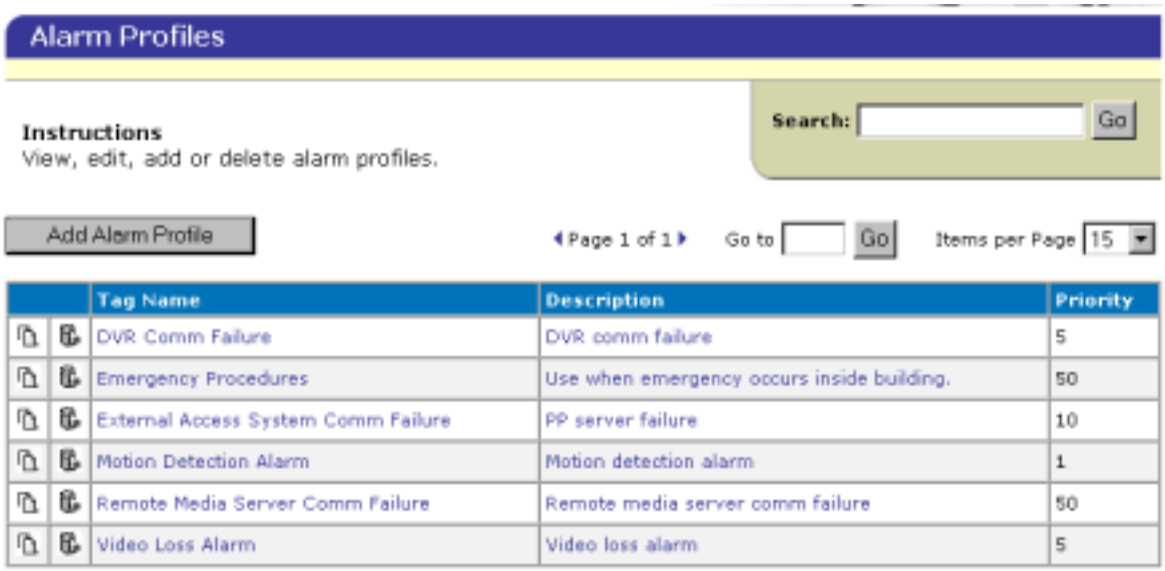


Figure 130. Alarm Profiles

Adding an Alarm Profile

➤ **To add an alarm profile, follow these steps:**

1. Click **Add Profile** on the Alarm Profiles page. The Define Alarm Profile in Figure 131 displays.

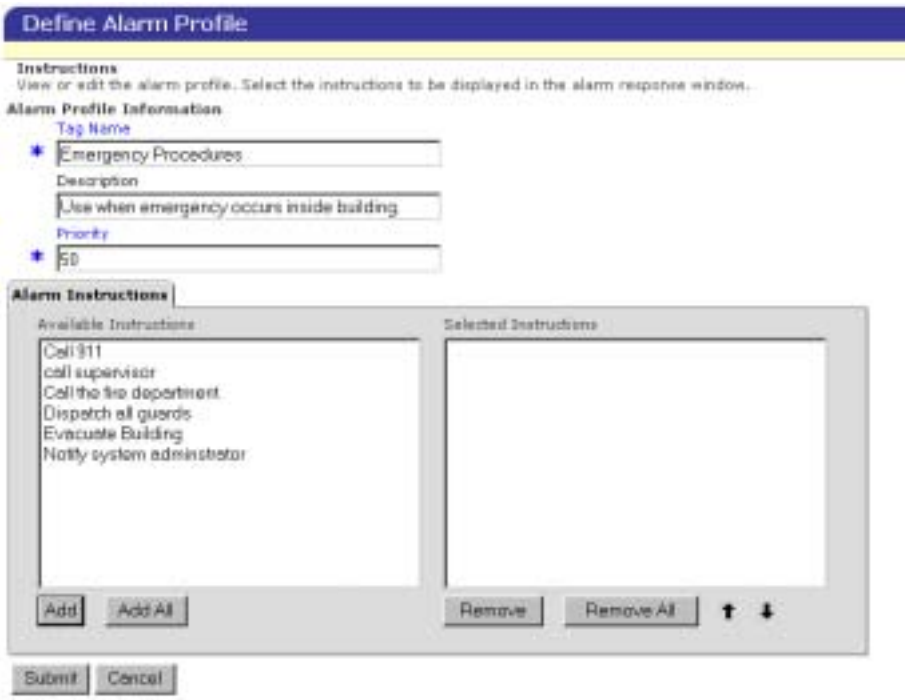


Figure 131. Define Alarm Profile

2. Enter the information described in described in Table 79. A check mark indicates a required field.
3. Click **Submit** to save the record.

Table 79 on page 200 lists and describes the fields in the Define Alarm Profile page. A check mark indicates a required field

.

Table 79. Define Alarm Profile fields and descriptions

Element	REQ	Description
Tag Name	✔	Enter a unique name to identify this profile. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Priority	✔	Identify the priority from 1-to-500. One is the highest priority.
Add/Add All		Use these buttons to add instructions to the profile.
Remove/Remove All		Use these buttons to remove instructions to the profile.
		Use the up and down arrow icons to change the sequence of the instructions that display in the Alarm Response window.

Chapter 10. Using the Alarm Monitor

This chapter introduces the Facility Commander Alarm Monitor and describes its features. It also describes how to use the Alarm Monitor to display different time zones. The Alarm Monitor displays icons indicating video clips and site maps are available.

In this chapter:

Overview on page 202
Navigating the Alarm Monitor on page 204
Alarm Alert on page 203
Navigating the Alarm Monitor on page 204
Customizing the Alarm Monitor on page 207
Changing Window Name and Contents on page 207
Launch Video Automatically on page 210
Responding to Alarms on page 211

Overview

The Alarm Monitor is a multi-functional client application that allows you to view alarm events. The Alarm Monitor displays alarm events as a single transaction which is updated when the status of the alarm changes.

The Alarm Monitor allows an operator to:

- View alarms in colors you select.
- Launch the Video Viewer to view live and recorded video.
- Launch the Graphics Display to view the alarm point on a graphic display, issue commands to lock and unlock doors, and more.
- Acknowledge an alarm with a text message or use a predefined message.

If configured to do so, the Alarm Monitor window displays indicators representing video clips and site maps associated with the alarm event.

The Alarm Monitor displays incoming alarms with indicators, priority, operator time, alarm description, location, alarm state, input state, processing state, and count.

A status bar displays the number of total alarms, unacknowledged alarms, and the highest priority. The status bar also displays a server connection icon to monitor connection to the Facility Commander server.

Automatically Launch Video Viewer by Alarm Priority

In addition, you can configure Facility Commander to automatically launch a Video Viewer when an alarm event occurs with associated video. Each time an alarm event occurs within the specified priority range, the Video Viewer launches and displays both live video and the recorded video clip of the event.

To configure:

- Use the Configure System Parameters page to identify the priority range, which determines when the Video Viewer launches automatically. Refer to *System Parameters* on page 56 for more information.
  - The priority range is from 1-to-500. Every alarm in the specified priority level causes the Video Viewer to launch. If a range is not specified, the Video Viewer does not automatically launch.
- Use Event Action Mapping to associate the alarm event and video tagging instructions, which include camera presets, camera preset with video tagging, and video tagging. Refer to *Tagging Video Events for Access Points* on page 180 for more information.
- Identify the workstations where you want the Video Viewer to launch automatically when an alarm event occurs. Refer to *Workstations* on page 51 for more information.
- Open the Alarm Monitor to display alarm activity. If the Alarm Monitor is not opened, the Video Viewer does not automatically launch.

Alarm Alert

The Alarm Alert window shown in Figure 132 displays on the client workstation when an alarm event occurs and cannot be closed. However, the Alarm Alert window displays only when there are alarms; if the total number of alarms equals zero, the window does not display.

The Alarm Alert window displays a count of all the alarms in an operator's context. The window filter does not filter any alarms in this window, so all alarms that the operator can view are included in the alarm count.

To configure the Alarm Alert, refer to *Workstations* on page 51 for more information.

Figure 132. Alarm Alert window

Refer to Table 80 for a description of the Alarm Alert window.

Table 80. Alarm Alert descriptions

Information	Description
Active Alarms	Displays a count of the active alarms. When the number of active alarms equals zero, the Alarm Alert window will be gray. The window is red when alarms are present.
Total Alarms	Displays a count of the total number of alarms.
Highest Priority	Displays the number of the highest priority alarm.
Silence	Click **Silence** to stop the sound.

Navigating the Alarm Monitor

➤ **To open the Alarm Monitor, follow these steps:**

1. Launch the Facility Commander Launcher window, select **Launch** and **Alarm Monitor**, or select the **Alarm Monitor** icon from the **Viewers** toolbar.
2. The Alarm Monitor shown in Figure 133 displays.

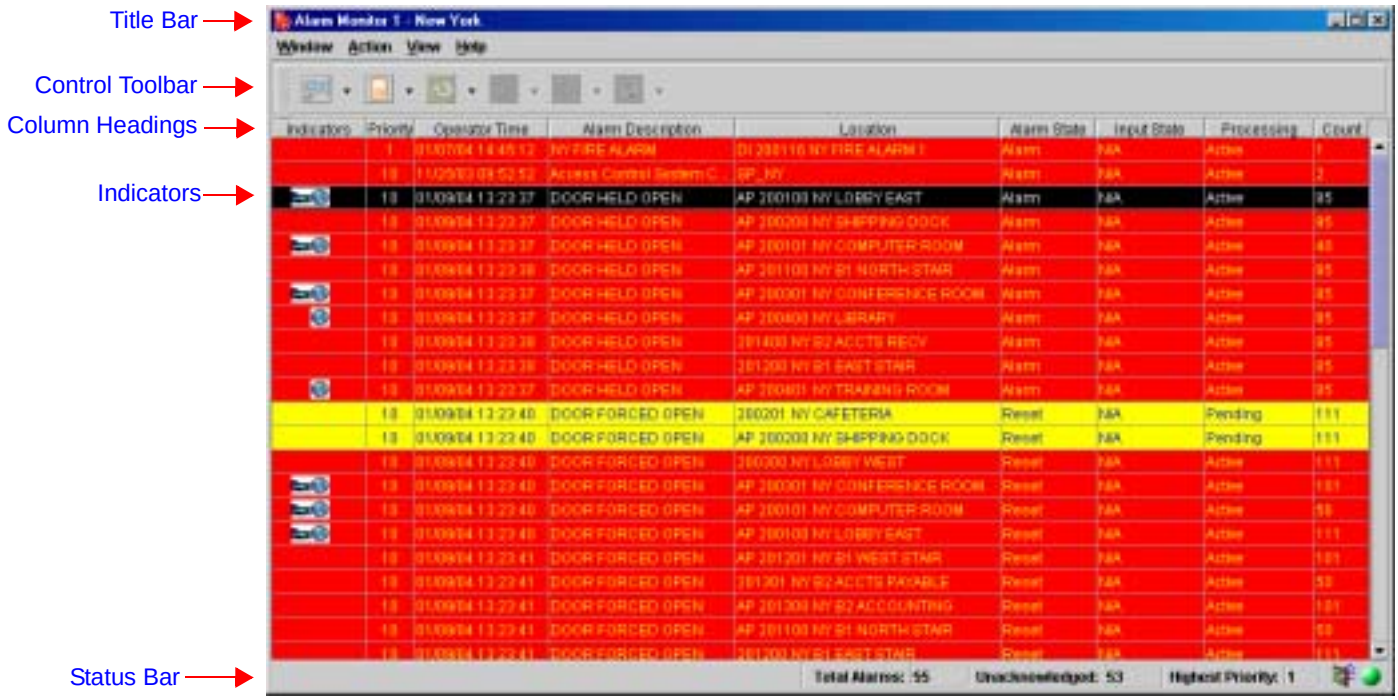


Figure 133. Alarm Monitor window

Table 81 lists and describes the elements on the Alarm Monitor interface.

Table 81. Alarm Monitor descriptions

Element	Description
Alarm Monitor Interface	
Title Bar	Displays Alarm Monitor, window instance number, and custom window title. • Refer to *Managing Multiple Windows* on page 27 for more information about window instance numbers. • Refer to *Changing Window Name and Contents* on page 207 for instructions to add window titles.

Table 81. Alarm Monitor descriptions (Continued)

Element	Description
Control Toolbar	The Control Toolbar displays buttons with icons for each type of device that can be selected, which includes cameras, intercom stations, access points, graphic displays, inputs, and outputs. Icons on the Control Toolbar are dimmed when not available.
	Video Viewer. The default action is view live and recorded video.
	Access Point. The default action is momentary unlock.
	Graphic Viewer. The default action is view the associated graphic display.
	Inputs. No default action.
	Outputs. No default action.
	Intercom. The default action is connect.
	Each button is made up of two parts — the button with icon, and a drop-down list with all the actions that are available to the operator. When a button is enabled, a tooltip identifies the default action. Actions appearing on the drop-down list may be dimmed if the action does not apply to the current device or if the operator does not have permission to take the action.
Column Headings	Columns cannot be moved, however, you can resize the columns to make them larger or smaller. Select the column edge and drag until the column is the correct size.
Indicators	Displays an X to indicate communication has been lost with the Picture Perfect server. Displays a camera and a globe icon indicating a video clip and a graphic display are available, if configured to do so. • Click the camera icon to launch the Video Viewer. • Click the globe icon to launch the Graphics Viewer. Refer to Event Mapping for information about associating video with alarm events. Refer to *Using the Graphics Editor* on page 299 for information about creating site maps.
Input State	• Open indicates the input device is open. • Close indicates the input device is closed. • Cut indicates the line has been cut. • Short indicates the line is shorted. • N/A indicates the field does not apply to the alarm.

Table 81. Alarm Monitor descriptions (Continued)

Element	Description
Processing	Displays the following operator processing states: • **Active**: the alarm has not been acknowledged by an operator. • **Pending**: the alarm has been acknowledged by an operator but not removed. • **Completed**: the alarm has been removed but the alarm input is waiting for a physical reset. • **Purged**: the alarm has been removed but the alarm input is waiting for a physical reset. • **Bumped**: the alarm has not been acknowledged within a specified time and has been sent to one or more specified Picture Perfect or Secure Perfect workstations. • **Notified**: used by Network Alarm Notification (NAN) in a Picture Perfect or Secure Perfect Enterprise system. alarms that are received by the alarm monitor (on a subhost), but are not acknowledged in a defined amount of time, and are forwarded (through a login window) to a pre-defined terminal on the network host. • **Remote Notified**: used by Remote Alarm Notification (RAN). Refer to the *Picture Perfect Administration Guide* or the *Secure Perfect Administration Guide* for more information.
Count	Displays number of times the alarm has been set and reset.
Status Bar	
Total Alarms	Displays the total number of alarms received. This includes alarms generated by the access control system and Facility Commander.
Unacknowledged	Displays the total number of alarms that are unacknowledged.
Highest Priority	Displays the highest priority number of the alarms. The alarm priority is defined in Picture Perfect or Secure Perfect.
Window Filter Icon	Displays an icon indicating the operator has reduced the number of facilities in their view. When all of the facilities are selected, the icon no longer displays on the status bar. Refer to *Changing Window Name and Contents* on page 207 for instructions to add window titles.
Server Connection Indicator	Displays an icon indicating if the system with the Alarm Monitor is connected to the Facility Commander server. • Green indicates the system is communicating with the server. • Red indicates the system is no longer communicating with the Facility Commander server.

Customizing the Alarm Monitor

The Alarm Monitor displays a window title, multiple time zones, and can be configured to automatically launch a Video Viewer. For more information, refer to the following sections:

- *Changing Window Name and Contents*
- *Display Multiple Time Zones*
- *Launch Video Automatically* on page 210

Changing Window Name and Contents

Use the **Window Filter** shown in Figure 134 to modify the current display of items in the navigation pane; allowing an operator to view specific records, such as those from New York and not from Boston or Chicago.

When an operator does not have permission to modify the items in the window filter, the items are disabled. The operator is able to view the items displayed in the window, but not able to make any selections.

Click icon to see demo.

➤ **To filter items from view in the client applications, follow these steps:**

1. From the **View** menu, select **Window Filter**. The Window Filter window in Figure 134 displays.

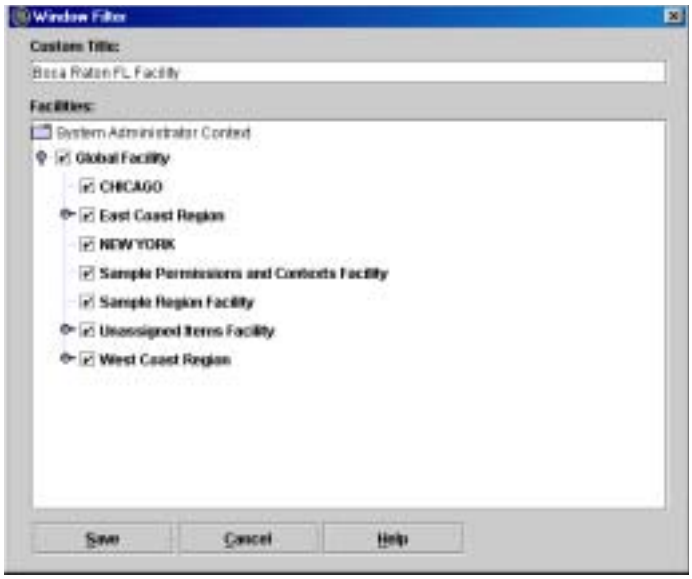


Figure 134. Window Filter window

2. Use the **Custom Title** field to identify a title to display on the Video Viewer title bar. Maximum number of characters is 256.

3. Select the check boxes to indicate the items you want to display in the client applications. A check mark indicates the item is selected. Clear the check boxes to remove the items from view.
4. Click **Save**. The Alarm Monitor displays a window filter icon in the status bar indicating the operator has reduced the number of facilities in their view.

Display Multiple Time Zones

The Alarm Monitor can display up to four columns of time zones, which include GMT, operator, server, and device. The device time zone represents the time zone of the devices associated with the alarm event.

Click icon to see demo.

➤ **To change time zones, follow these steps:**

1. From the **View** menu, select **Options**. The Alarm Monitor Options window shown in Figure 135 displays.

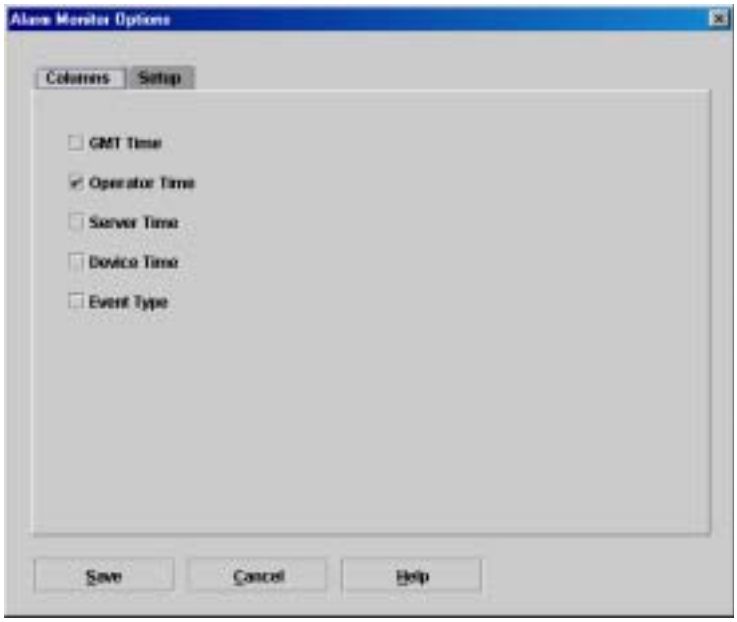


Figure 135. Alarm Monitor Options window — Columns tab

2. On the **Columns** tab page, select the check boxes indicating which time zones to display on the Alarm Monitor. A check mark indicates the item is selected. Clear the check boxes to remove the column.

3. Click **Save**. If you decide not to make any changes, click **Cancel**.

Table 82. Monitor Options description

Field Name	Description
GMT Time	Displays Greenwich Mean Time. This is the default setting.
Operator Time	Displays the time for the operator's location.
Server Time	Displays the time for the server's location. This may be different from the Operator or Device time.
Device Time	Displays the time for the device's location.
Event Type	Displays the event type general category.

Launch Video Automatically

➤ **To automatically launch the video popup window, follow these steps:**

1. From the **View** menu, select **Options**. The Alarm Monitor Options window as shown in Figure 136 displays.

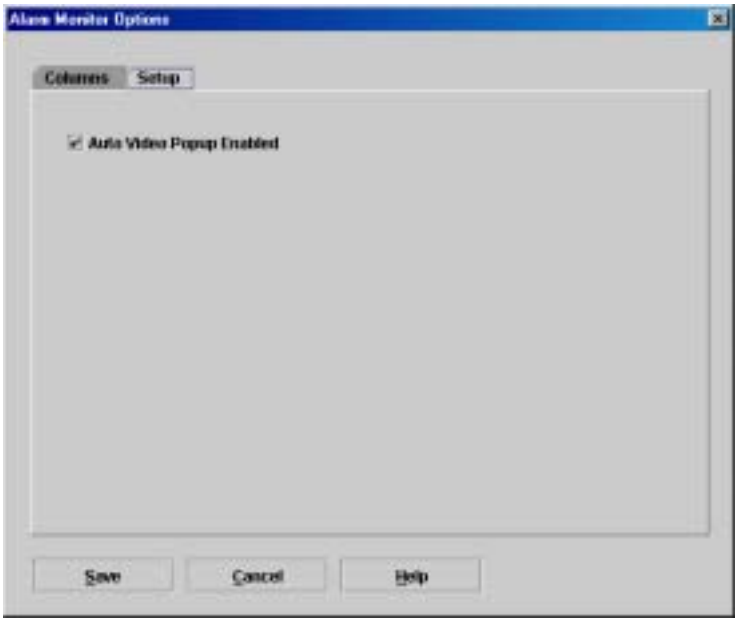


Figure 136. Alarm Monitor Options window — Setup tab

2. Select the **Setup** tab page and select the **Auto Video Popup Enabled** check box to automatically launch a Video Viewer window.
   - Clear the check box if you do not want to a Video Viewer window to launch when an alarm is generated.
   - If you are unable to change the setting, refer to *Auto Alarm Video Popup Priority Range* on page 58 or verify the operator's permissions setting.
3. Click **Save**.

Responding to Alarms

Click icon to see demo.

The Alarm Monitor window allows operators to respond to incoming alarms by using the Alarm Response window shown in Figure 137 on page 212. An operator launches the Alarm Response Window by double-clicking the alarm on the Alarm Monitor or selecting Acknowledge from the Actions menu.

Using the Alarm Response window, an operator can acknowledge, remove, or purge an alarm.

- Instructions for alarms are generated by and retrieved from the access control systems.
- If there are multiple Picture Perfect systems, the appropriate system supplies the instructions for the alarms. This statement is also true of Secure Perfect systems.

Operators can select a pre-defined alarm response or type a response in the Alarm Response window.

Alarm Response Required

Depending on the system parameters, an operator can be required to enter a response before removing an alarm.

An alarm priority range is identified and any time an alarm event occurs within the range, an operator will be required to enter a response. If a priority range is not specified, alarms can be acknowledged without entering a response in the Alarm Response window.

If the operator does not enter the required response, the Remove and Purge alarm action will be ignored until a response is provided.

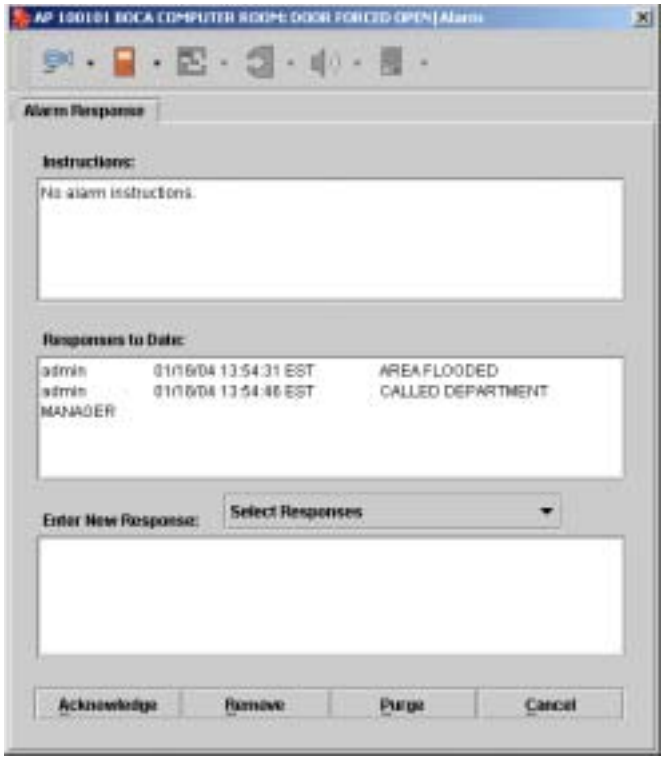


Figure 137. Alarm Response window

Table 83 lists and describes the elements in the Alarm Response window.

Table 83. Alarm Response elements and descriptions

Element	Description
Title Bar	Displays alarm source, type, and a custom window title, if configured to do so.
Control Toolbar	Use the to issue commands, such as the default action or access the action menu. Refer to *Control Toolbar* on page 205 for more information.
Instructions	Displays alarm instructions, such as who to call or who to dispatch to the area. • Alarm instructions for Picture Perfect and Secure Perfect generated alarms are defined in the source system. Up to five messages can be assigned to each alarm. • Alarm instructions for Facility Commander generated alarms are defined in Facility Commander.
Responses to Date	Displays all the responses to the alarm event up to the current time. The operator's user name, the date and time of the response, and the response text displays.

Table 83. Alarm Response elements and descriptions (Continued)

Element	Description
Enter New Response	Use to enter a custom text response. Use up to 255 characters. Avoid using quote marks (“) in the text, as this character is not recognized by Picture Perfect or Secure Perfect.
Buttons	
Acknowledge	Click **Acknowledge** after entering a response. The alarm remains on the Alarm Monitor and processing state changes from Active to Pending.
Remove	Click **Remove** when all the responses have been recorded and the alarm is no longer being investigated. The processing state changes to Completed. The alarm is not removed from the Alarm Monitor until the alarm is reset. If the alarm is not reset, it will continue to display.
Purge	Click **Purge** to remove the alarm from the Alarm Monitor, regardless of the alarm state. The action is allowed only if you have the correct permissions. Contact your system administrator to make changes.
Cancel	Click **Cancel** to return to the Alarm Monitor window.

Chapter 11. Using the Event Monitor

This chapter introduces the Facility Commander Event Monitor and describes its features. It also describes how to use the Event Monitor to display different time zones and event types. the Event Monitor displays icons indicating video clips and site plans are available.

In this chapter:

Overview on page 216
Navigating the Event Monitor on page 216
Setting Event Monitor Options on page 222
Changing the Event Types Filter on page 223
Customizing Window Name and Contents on page 226

Overview

The Event Monitor is a multi-functional client application that allows you to view alarm, badge, and system events. On the Event Monitor, alarm events (alarms and resets) are displayed as individual transactions. In contrast, the Alarm Monitor displays alarm events as a single transaction which is updated when the the status of the alarm changes.

Column headings change depending on the type of event. The Event Monitor always displays Indicators, Device Time, Event Type, Description, and Location. Refer to the following sections for a description of the column headings:

- *Alarm Events List* on page 219
- *Badge Events List* on page 220
- *System Events List* on page 221

New events appear at the bottom of a scrollable list. Only the last 1000 events appear on the list, after which the oldest events are removed.

Navigating the Event Monitor

➤ **To open the Event Monitor, follow these steps:**

1. Launch the Facility Commander Launcher window, select **Launch** and **Event Monitor**, or select the **Event Monitor** icon from the **Viewers** toolbar.
2. The Event Monitor shown in Figure 138 on page 217 displays.

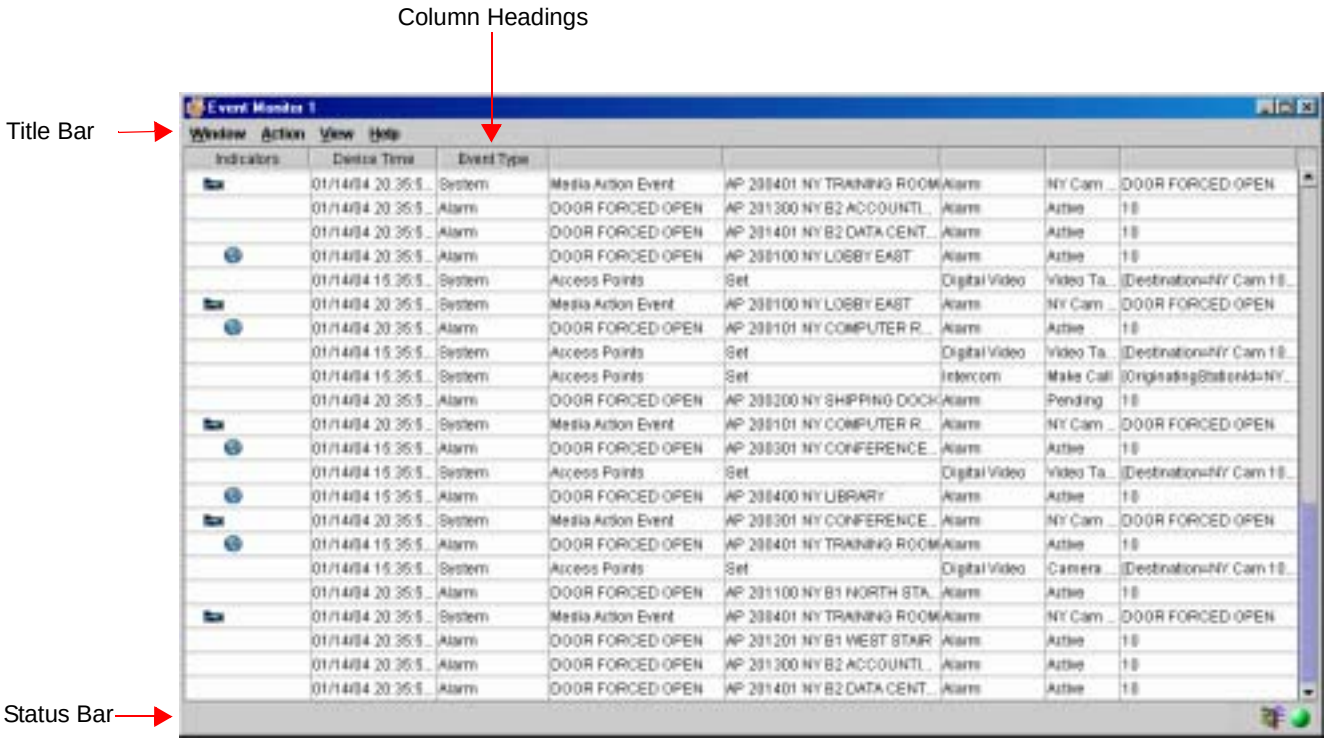


Figure 138. Event Monitor window

Table 84 lists and describes the elements on the Event Monitor interface.

Table 84. Event Monitor description

Element	Description
Title Bar	Displays the title Event Monitor and the window instance number, since you may open more than one occurrence of the Event Monitor. Refer to *Managing Multiple Windows* on page 27 for more information.
Indicators	Displays icons representing site maps and video associated with the alarm event. • Displays an X to indicate communication with the Picture Perfect or Secure Perfect server has been lost. • Click the globe icon to launch the Graphics Viewer displaying the default site plan. Refer to *Editing Access Points* on page 83 for information about associating a site plan to an alarm event. • Click the camera icon to launch the Video Viewer. The most recent video clip displays.

Table 84. Event Monitor description

Element	Description
Device Time	View the time an event occurred in one or more of the following four time stamps: • GMT: Greenwich Mean Time. • Operator (Default): location of the operator. • Server: location of the server. • Device: location of the device associated with the event. The format is month, day, year, hour, minute, and seconds (mm/dd/yy hh:mm:ss). For example: 12/10/02 16:28:04. The date format may change depending on the operator's locale.
Mapped Event Types	There are three types of events: alarm, badge, and system. Refer to the following sections: • *Alarm Events List* on page 219 • *Badge Events List* on page 220 • *System Events List* on page 221
Description	Description of the event.
Status Bar	
Window Filter Icon	Displays an icon indicating the list of available Facility Commander facilities has changed. When the facilities have been reset, the icon no longer displays on the status bar. Refer to *Customizing Window Name and Contents* on page 226 for instructions to add window titles.
Server Connection Indicator	Displays an icon indicating if the system with the Event Monitor is connected to the Facility Commander server. • Green indicates the system is communicating with the server. • Red indicates the system is no longer communicating with the Facility Commander server.

Alarm Events List

Refer to Table 85 for a description of the column headings that display for alarm events.

Table 85. Event Monitor Alarm Events description

Element		Description
Alarm State		
	Alarm	Alarm point is in an active state.
	Reset	Alarm point has been reset.
	Tamper	The wiring to the alarm point has either been cut or shorted.
Processing		
	Active	The alarm has not been acknowledged by an operator.
	Pending	The alarm has been acknowledged by an operator but not removed.
	Completed	The alarm has been removed but the alarm input is waiting for a physical reset.
	Purged	The alarm has been removed but the alarm input is waiting for a physical reset.
	Bumped	The alarm has not been acknowledged within a specified time and has been sent to one or more specified Picture Perfect workstations.
	Notified	Used by Network Alarm Notification (NAN) in a Picture Perfect Enterprise system. alarms that are received by the alarm monitor (on a subhost), but are not acknowledged in a defined amount of time, and are forwarded (through a login window) to a pre-defined terminal on the network host.
	Remote Notified	Used by Remote Alarm Notification (RAN).
Priority		
	Alarm	Displays a value only when the event type is alarm. The range is 1 to 500. Alarms with a priority of one have the highest priority.

Badge Events List

Refer to Table 86 for a description of the column headings that display for badge events.

Table 86. Event Monitor Badge Events description

Element	Description
First Name	Displays the first name of the badgeholder.
Last Name	Displays the last name of the badgeholder.
Employee Number	Displays the employee number of the badgeholder.

System Events List

Refer to Table 87 for a description of the column headings that display for system events.

Table 87. Event Monitor System Events description

Element		Description
Video		
	Mapped Event Location	Displays the location of the event
	Mapped Event State	Displays the event state.
	Video Token ID	Displays the video token ID associated with the recorded video clip.
Intercom		
	From Extension	Enter the intercom extension number. Refer to *Adding Intercom Stations* on page 237 for more information.
	Station Description	Enter the intercom station description. Refer to *Adding Intercom Stations* on page 237 for more information.
	To Extension	Enter the intercom extension number to be dialed.
	Station Description	Enter the intercom extension number of the station being dialed.

Setting Event Monitor Options

Click icon to see demo.

➤ **To set the options, follow these steps:**

1. From the **View** menu, select **Options**. The Event Monitor Options window in Figure 139 displays.

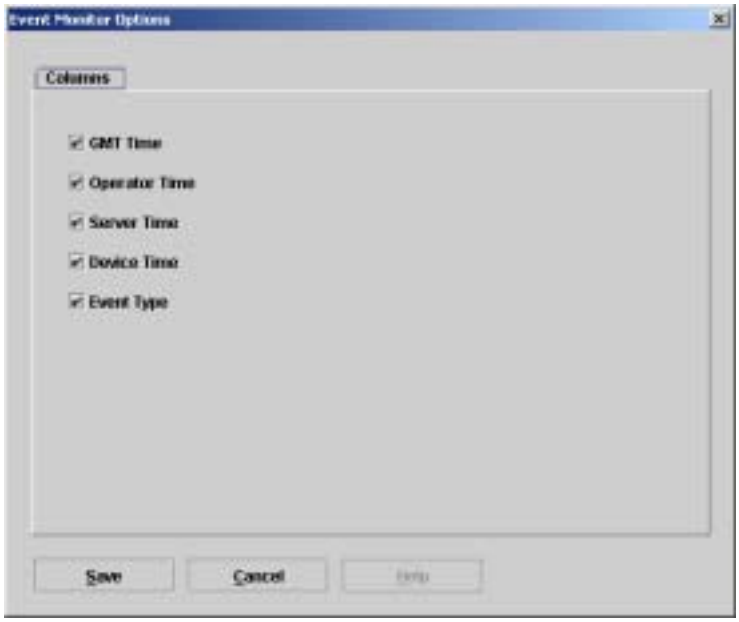


Figure 139. Event Monitor Options window

2. Select the check boxes to indicate the time stamps you want to display on the Event Monitor. The default setting is all check boxes are selected. A check mark indicates the time stamp is selected.
   - Clear the check boxes to remove the time stamp from view.
3. Select the check box to display the column on the Event Monitor.
4. Click **Save**.

Changing the Event Types Filter

➤ **To filter the event types from view, follow these steps:**

1. From the **View** menu, select **Event Type Filter**. The Event Monitor Filter window in Figure 140 displays.

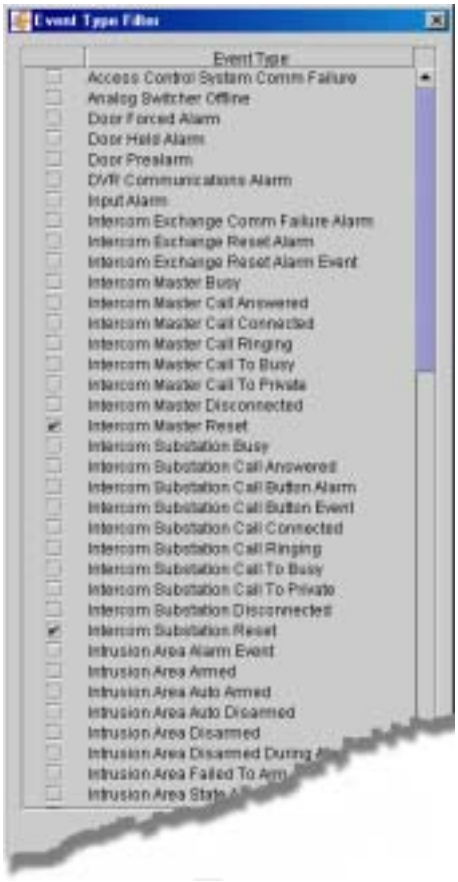


Figure 140. Event Type Filter

2. Select the check boxes to indicate the event types you want to display on the Event Monitor. A check mark indicates the event type is selected. Refer to Table 88 on page 224 for a complete list of event types.
   - Clear the check boxes to remove the event types from view.
3. Click **OK**.

Event Types List

Table 88 lists the event types that display on the Event Monitor.

Table 88. Event Monitor Event Types

Event Types	Event Types
Access Control Comm Failure	Intercom Substation Reset
Analog Switcher Offline	Intrusion Area Alarm Event
Door Forced Alarm	Intrusion Area Armed
Door Held Alarm	Intrusion Area Auto Disarmed
Door Prealarm	Intrusion Area Disarmed During Alarm
DVR Communications Alarm	Intrusion Area Failed To Arm
Input Alarm	Intrusion Area State Armed All Clear
Intercom Exchange Comm Failure Alarm	Intrusion Area Armed and In Alarm
Intercom Exchange Reset Alarm	Intrusion Area Armed and In Alarm Event
Intercom Exchange Reset Alarm Event	Intrusion Area State Disarmed
Intercom Master Busy	Intrusion Area Unknown
Intercom Master Call Answered	Intrusion Battery Test Failure
Intercom Master Call Connected	Intrusion Battery Test Finish
Intercom Master Call Ringing	Intrusion Battery Test Start
Intercom Master Call To Busy	Intrusion DGP Main Power Failure Alarm
Intercom Master Call To Private	Intrusion DGP Offline Alarm
Intercom Master Call Disconnected	Intrusion DGP Siren Monitor Failure Alarm
Intercom Master Reset	Intrusion DGP Tamper Alarm
Intercom Substation Busy	Intrusion Input Alarm
Intercom Substation Call Answered	Intrusion Input Alarm Event
Intercom Substation Call Button Alarm	Intrusion Input Bypassed
Intercom Substation Call Button Alarm Event	Intrusion Input Bypassed Alarm
Intercom Substation Call Connected	Intrusion Input Detector Dirty
Intercom Substation Call Ringing	Intrusion Input Detector Low Battery
Intercom Substation Call To Busy	Intrusion Input Detector Supervision

Table 88. Event Monitor Event Types (Continued)

Event Types	Event Types
Intercom Substation Call To Private	Intrusion Input Fault
Intercom Substation Disconnected	Intrusion Input Fault Alarm
Intrusion Input Holdup At Night	Intrusion Input Holdup At Night
Intrusion Input Tamper	Intrusion Input Tamper
Intrusion Input Tamper Alarm	Intrusion Input Tamper Alarm
Intrusion Keypad Bypassed Alarm	Invalid Badge Event
Intrusion Keypad Offline Alarm	Logical Input Alarm
Intrusion Keypad Tamper Alarm	Intrusion Input Tamper Alarm
Intrusion Low Panel Battery	Lost Badge Alarm
Intrusion Panel Burglar Alarm Cancelled	Mapped Event Action Audit
Intrusion Panel Code Entered	Media Action Event
Intrusion Panel Exit Fault	Motion Detection Alarm
Intrusion Panel Main Power Failure	Reader Supervised Exit Alarm
Intrusion Panel Main Power Failure Alarm	Remote Media Server Comm Failure
Intrusion Panel Offline Alarm	Lost Badge Alarm
Intrusion Panel Tamper	Supervised Reader Alarm
Intrusion Panel Tamper Alarm	Suspended Badge Alarm
Intrusion Siren Monitor Failure	Table Rollover Event
Intrusion Siren Monitor Failure Alarm	Unknown Badge Alarm
Invalid Badge Alarm	Valid Badge Event
Intrusion Input Holdup At Night	Video Loss Alarm
Intrusion Input Tamper	Supervised Reader Alarm
	Suspended Badge Alarm

Customizing Window Name and Contents

Use the **Window Filter** shown in Figure 141 to modify the current display of items displayed in the navigation pane; allowing an operator to view specific records, such as those from New York and not from Boston or Chicago.

When an operator does not have permission to modify the items in the **Window Filter**, the items are disabled. The operator is able to view the items displayed in the window, but is not able to make any selections.

➤ **To filter items from view in the navigation pane, follow these steps:**

1. From the **View** menu, select **Window Filter**. The window filter in Figure 141 displays.

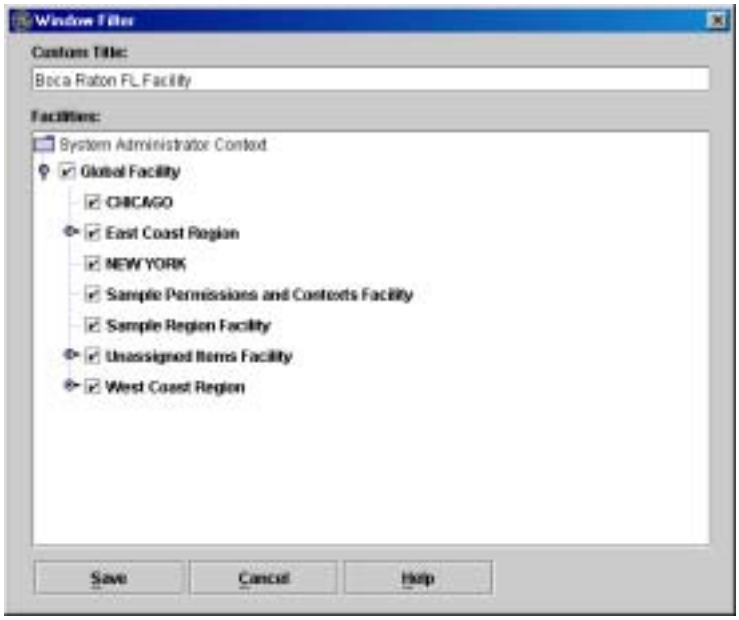


Figure 141. Window Filter window

2. Use the **Custom Title** field to identify a title to display on the Video Viewer title bar. Maximum number of characters is 256.

3. Select the check boxes to indicate the items you want to display in the navigation pane of the client application. A check mark indicates the item is selected.
   - Clear the check boxes to remove the items from view.
4. Click **Save**. The Event Monitor displays a window filter icon in the status bar indicating the list of items has changed

Chapter 12. Configuring Intercom Devices

This chapter describes how to configure intercom exchanges and intercom stations.

Readers should be knowledgeable about hardware configuration for the intercom equipment. Refer to the vendor's documentation for instructions to install and configure the equipment.

In this chapter:

Overview on page 228
Configuring Intercom Exchanges on page 229
Configuring Intercom Stations on page 236
Tips for Creating Symbol Schemes on page 242

Overview

The intercom feature in Facility Commander allows operators to connect calls from substations to master stations. Using the Graphics Viewer, operators can view intercom call station events on graphic displays.

Terminology

Facility Commander uses these terms to describe intercom devices:

Exchange	Intercom hardware, which is typically located in the control center and serves as a switch to physically connected devices.
Master Station	Intercom which is typically located at an operator's workstation. The master station has a keypad.
Substation	Intercom which is typically located at door entrances. The substation has a button, which is used to communicate, but does not have a keypad.

Checklist

A system administrator should use the checklist below to implement the intercom feature in Facility Commander.

✔	Configure the intercom exchange. Refer to *Adding an Intercom Exchange* on page 230 for more information.
✔	Configure intercom stations. Refer to *Adding Intercom Stations* on page 237 for more information.
✔	Create a symbol scheme with intercom devices to use on a graphic display. Refer to *Creating Symbol Schemes* on page 281 for more information.
✔	Create a graphic display and place symbols representing intercom devices. Refer to *Creating Graphic Displays* on page 297 for more information.

Configuring Intercom Exchanges

Use the Intercom Exchanges page to add, edit, copy, and delete intercom exchange records. Refer to the following sections for instructions:

- *Viewing Intercom Exchanges* on page 229
- *Adding an Intercom Exchange* on page 230

Viewing Intercom Exchanges

➤ **To view intercom exchange records, follow these steps:**

1. Select **Device Management**.
2. Select **Intercom Exchanges**. The Intercom Exchanges page shown in Figure 142 on page 229 displays.

Figure 142. Intercom Exchanges page

Adding an Intercom Exchange

Click icon to see demo.

➤ **To add an intercom exchange, follow these steps:**

1. Select **Device Management**, and then **Intercom Exchanges**. The Intercom Exchanges page displays.
2. Click **Add Intercom Exchange**. The Configure Intercom Exchange page as shown in Figure 143 displays.

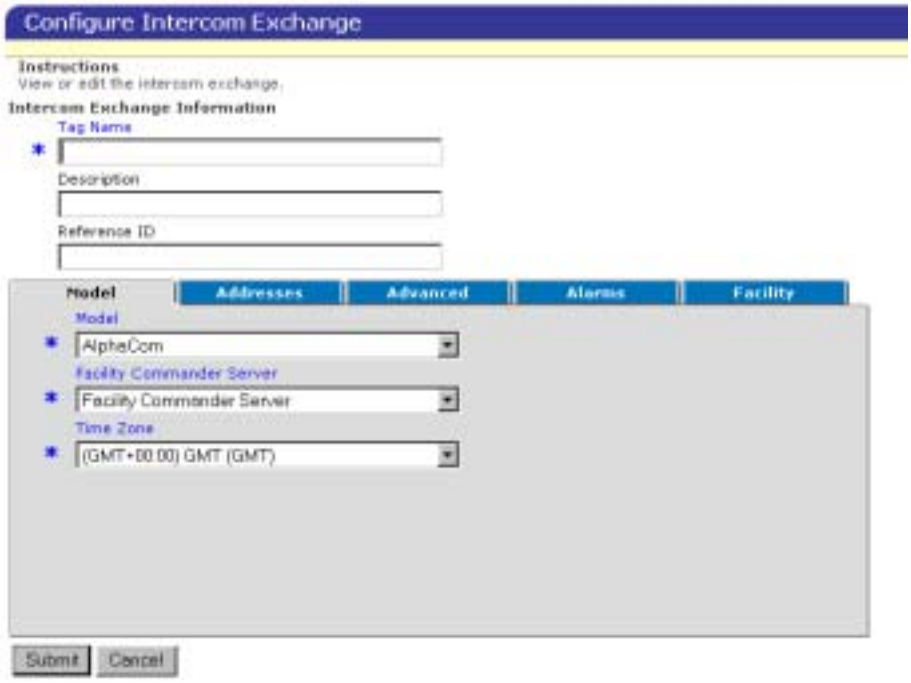


Figure 143. Configure Intercom Exchanges page

3. Enter the information described in Table 89. A check mark indicates a required field. Continue to add information on the tabbed pages.
4. Click **Submit** to save the record.

Table 89. Configure Intercom Exchange fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify the item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

Model Tab

Figure 144. Configure Intercom Exchanges — Model tab

5. Select the **Model** tab as shown in Figure 144 and enter the information described in Table 90. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 90. Configure Intercom Exchange fields and descriptions

Field Name	REQ	Description
Model		Use the drop-down list to select the intercom exchange model name.
Facility Commander Server	✔	Use the drop-down list to select the Facility Commander server that controls communication with this intercom exchange.
Time Zone	✔	Use the drop-down list to select the time zone where this device is located. This time zone displays on the Alarm Monitor and Event Monitor. The default time zone setting is GMT.

Addresses Tab

Figure 145. Configure Intercom Exchanges — Addresses tab

6. Select the **Addresses** tab as shown in Figure 145 and enter the information described in Table 91. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 91. Configure Intercom Exchange fields and descriptions

Field Name	REQ	Description
Exchange Number		Enter an exchange number *only when there are multiple intercom exchanges* with overlapping station numbers.
IP Address or Host Name	✔	Enter the intercom station IP address or host name. The host name is case-sensitive.
Port	✔	Enter the port number.

Advanced Tab

Figure 146. Configure Intercom Exchanges — Advanced tab

7. Select the **Advanced** tab as shown in Figure 144 and enter the information described in Table 92. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 92. Configure Intercom Exchange fields and descriptions

Field Name	REQ	Description
Status Polling Interval (seconds)	✔	Enter the number of seconds to wait before Facility Commander polls the intercom device. The default value is 15 seconds.
Reconnect Attempt Interval (seconds)	✔	Enter the number of seconds to wait before trying to reconnect to the Facility Commander server. The default value is 30 seconds.

Alarms Tab

Figure 147. Configure Intercom Exchanges — Alarms tab

8. Select the **Alarms** tab as shown in Figure 145 and enter the information described in Table 93. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 93. Configure Intercom Exchange fields and descriptions

Field Name	REQ	Description
Intercom Exchange Comm Failure Alarm		Use the drop-down list to select the appropriate alarm profile when the intercom exchange is no longer communicating with the Facility Commander server.
Intercom Exchange Reset Alarm		The intercom exchange can reset itself and if it does, this alarm is generated.

Facility Tab

Figure 148. Configure Intercom Exchanges — Facility tab

9. Select the **Facility** tab as shown in Figure 148 and enter the information described in Table 94. A check mark indicates a required field.

Table 94. Configure Intercom Exchange fields and descriptions

Field Name	REQ	Description
Assigned to		Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Configuring Intercom Stations

Use the Intercom Stations page to add, edit, copy, and delete intercom station records. Refer to the following sections for more information:

- *Viewing Intercom Stations*
- *Adding Intercom Stations* on page 237

Viewing Intercom Stations

➤ **To view intercom stations, follow these steps:**

1. Select **Device Management**.
2. Select **Intercom Stations**. The Intercom Stations page as shown in Figure 142 displays.

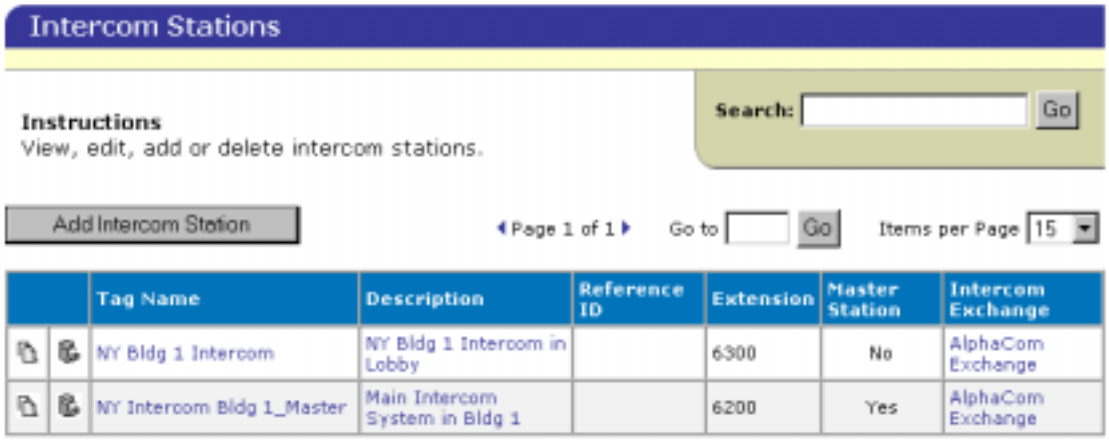


Figure 149. Intercom Stations list page

Adding Intercom Stations

➤ **To add an intercom station, follow these steps:**

1. Select **Device Management**, and then **Intercom Stations**. The Intercom Station page displays.
2. Click **Add Intercom Station**. The Configure Intercom Station page as shown in Figure 150 displays.

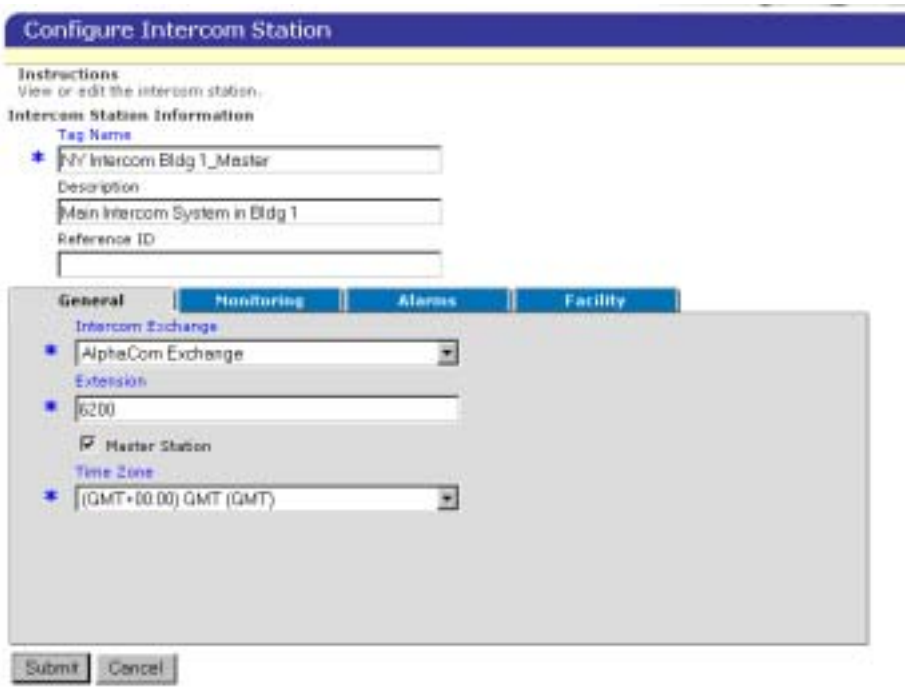


Figure 150. Configure Intercom Station page

3. Enter the information described in Table 95. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 95. Configure Intercom Station fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

General Tab

Figure 151. Configure Intercom Station — General tab

5. Select the **General** tab as shown in Figure 151 and enter the information described in Table 96. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 96. Configure Intercom Station fields and descriptions

Field Name	REQ	Description
Intercom Exchange	✔	Use the drop-down list to select the intercom exchange switch physically connected to the intercom station.
Extension	✔	Enter the extension number of the intercom station.
Master Station		Select this check box to indicate if this is a master intercom station.
Time Zone	✔	Use the drop-down list to select the time zone where this device is located. This time zone displays on the Alarm Monitor and Event Monitor. The default time zone setting is GMT.

Monitoring Tab

Figure 152. Configure Intercom Station — Monitoring tab

6. Select the Monitor tab as shown in Figure 151 and enter the information described in Table 97. A check mark indicates a required field. Continue to add information on the tabbed pages.
7. Click **Submit** to save the record.

Table 97. Configure Intercom Station fields and descriptions

Field Name	REQ	Description
Graphic Display		Use the drop-down list to create the default action for the device. When an operator uses the Control Toolbar, this graphic display will be listed. Refer to *Control Toolbar* on page 205 for more information.
Camera		Use the drop-down list to create the default action for the device. When an operator uses the Control Toolbar, this camera will be listed. Refer to *Control Toolbar* on page 205 for more information.
Preset		Use the drop-down list to create the default action for the device. When an operator uses the Control Toolbar, to select the camera, the camera will move to this preset position. Refer to *Control Toolbar* on page 205 for more information.
Access Point		Use the drop-down list to create the default action for the device. When an operator uses the Control Toolbar, this access pointed will be listed. Refer to *Control Toolbar* on page 205 for more information.

Alarms Tab

Figure 153. Configure Intercom Station — Alarms tab

8. Select the **Alarms** tab as shown in Figure 153 and enter the information described in Table 93. Continue to the next tabbed page. A check mark indicates a required field.

Table 98. Configure Intercom Station fields and descriptions

Field Name	REQ	Description
Intercom Substation Call Button Alarm		Use the drop-down list to select the appropriate alarm profile to generate when someone presses the intercom call button. No alarm is generated if this is not selected. *Do not select this alarm if this is a master station record.*

Facility Tab

Figure 154. Configure Intercom Stations — Facility tab

Select the Facility tab as shown in Figure 154 and enter the information described in Table 99. A check mark indicates a required field.

Table 99. Configure Intercom Stations fields and descriptions

Field Name	REQ	Description
Assigned to		Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Tips for Creating Symbol Schemes

Intercom stations have many states associated with them, such as Intercom Master Call Answered, Intercom Master Call Connected, Intercom Master Call Ringing, and many more.

Because there are so many states, a system administrator could have a difficult time creating the symbol scheme and displaying the intercom states correctly on the graphic displays.

To assist the system administrator in creating these symbol schemes, a few examples are included:

- *Intercom Exchange Symbol Scheme*
- *Intercom Master Station Symbol Scheme* on page 243
- *Intercom Substation Symbol Scheme* on page 244

Intercom Exchange Symbol Scheme

Figure 155 shows a symbol scheme for an Intercom Exchange. In this example, the Intercom Exchange Comm Failure Alarm is a red symbol and all of the other states are green symbols, including the initial state symbol. This helps to convey the online/offline status of the intercom exchange.

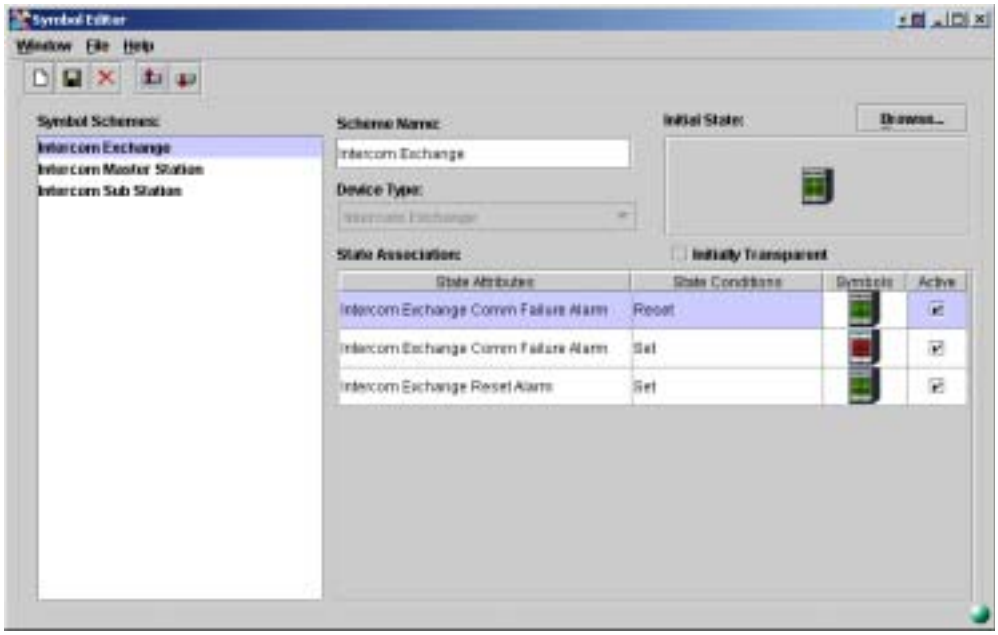


Figure 155. Example Intercom Exchange Symbol Scheme

Intercom Master Station Symbol Scheme

Figure 156 shows a symbol scheme for an Intercom Master Station.

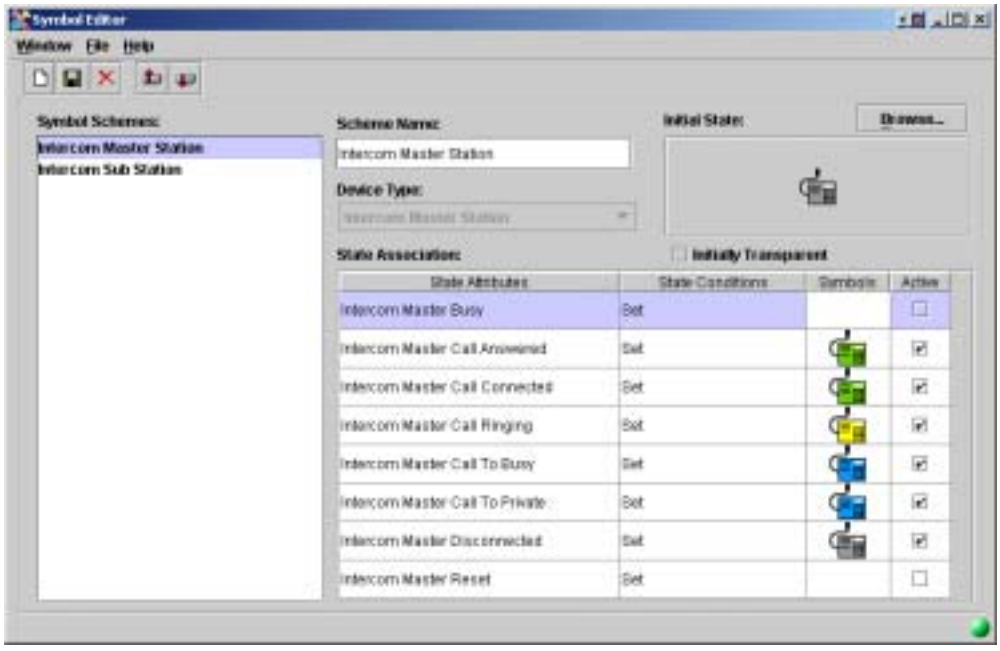


Figure 156. Example Intercom Master Station Symbol Scheme

Intercom Substation Symbol Scheme

Figure 157 shows a symbol scheme for an Intercom Substation.

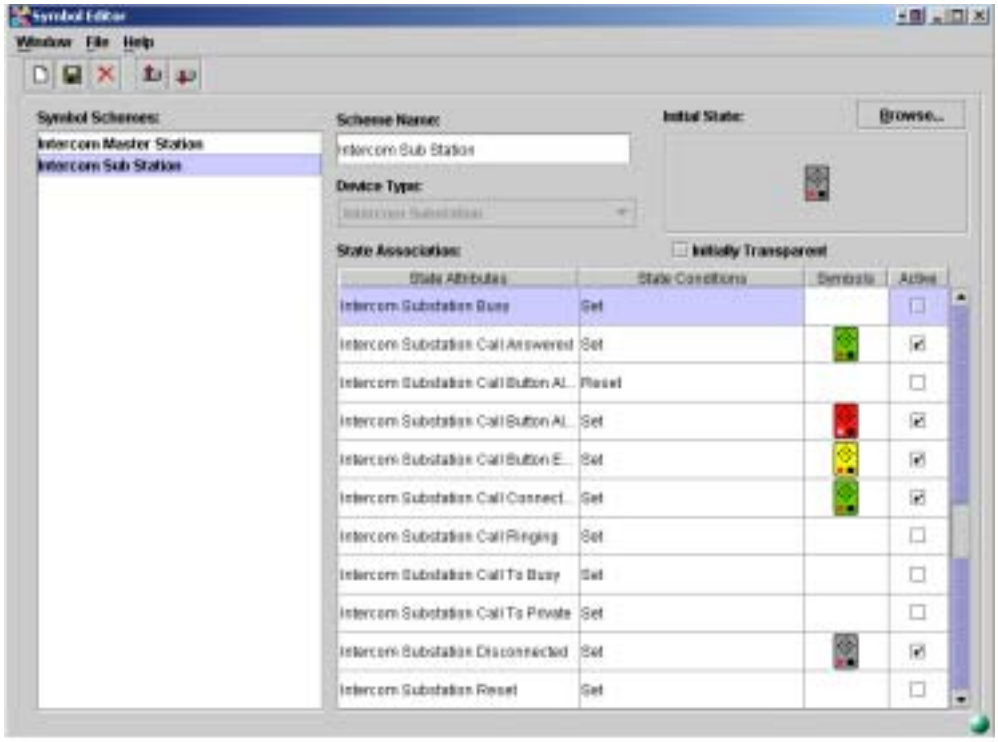


Figure 157. Example Intercom Substation Symbol Scheme

Chapter 13. Configuring Intrusion Devices

This chapter describes how to configure intrusion panels, intrusion areas, and intrusion inputs. Instructions to connect the RS-232 cable are included, as well as the parameters to configure the device server.

Readers should know how the current intrusion panel is configured. The Facility Commander configuration should reflect the intrusion panel's internal configuration.

In this chapter:

Overview on page 246
Connecting Intrusion Panels on page 247
Configuring Intrusion Panels on page 250
Configure Intrusion Areas on page 257
Configuring DGPs on page 262
Configure Intrusion Input on page 266
Configure Intrusion Outputs on page 271
Configure Intrusion Keypads on page 275

Overview

The intrusion feature in Facility Commander allows operators to view intrusion areas using the Graphics Viewer, view alarms and events from an intrusion panel, and arm or disarm an intrusion area. The following sections describe the feature in more detail:

- *Terminology*
- *Connecting Intrusion Panels* on page 247
- *Configuring Intrusion Devices* on page 247

Terminology

The security industry sometimes uses different terminology to describe intrusion devices. Facility Commander uses the terms defined below:

Area	A collection or group of input devices. An area may be armed, which means that an alarm is generated when the intrusion device is triggered.
Arm/Disarm	• The arm state means the inputs associated with the area can generate alarms when an input is active. • The disarm state means the inputs will not generate alarms even if the input is active.
Data Gathering Panel (DGP)	A type of intrusion sub-panel that is part of the ATS Intrusion system. The main intrusion panel controls the DGP.
Input	An intrusion sensor such as a motion detector and glass break detector. Also called point or zone. Inputs are wired to a panel.
Keypad	A device used by the operator to control an intrusion panel. Use the keypad to arm and disarm areas.
Output	A device, which is also called a relay, is used to control a light or siren.
Panel	A panel controls one or more areas. In this release, only the ATS 4017 Intrusion Panel is supported.

Configuring Intrusion Devices

Refer to the checklist below for the configuration order to implement the intrusion feature in Facility Commander.

✔	Connect Facility Commander server to the Tecom ATS 4017 Panel with the RS-232 internal communications board. Refer to *Connecting Intrusion Panels* on page 247.
✔	Configure the intrusion panel. Refer to *Configuring Intrusion Panels* on page 250.
✔	Configure the intrusion area for each area defined in the panel. Refer to *Configure Intrusion Areas* on page 257 page.
✔	Configure the intrusion input defined for each panel. Refer to *Configure Intrusion Input* on page 266.

Connecting Intrusion Panels

Facility Commander supports both Ethernet connections and RS-232 connections to the AL 4017 Intrusion Panel. Refer to:

- *Ethernet Connection*
- *RS-232 Connection* on page 249

Ethernet Connection

Encryption is available for Ethernet connections. If you choose to use encryption, enter the same encryption key as configured on the ATS panel.

The ATS panel uses the UDP/IP protocol, which unlike TCP/IP is blocked from passing through network routers by many IT Departments. The Facility Commander server and ATS panel should be located on subnets that allow UDP packets to be exchanged.

Configure this device using the Lantronix Device Installer application. Table 100 lists the parameters.

Table 100. Device Installer Parameters

Device Installer Parameters	
Serial Port Settings	
Serial Protocol	RS-232
Speed	4800
Character Size	8
Parity	None

Table 100. Device Installer Parameters (Continued)

Device Installer Parameters	
Stopbit	`1`
Flow Control	`None`
Connect Mode Settings	
UDP Datagram Mode	`Disable`
Incoming Connection	`Unconditional`
Response	`Nothing`
Startup	`No active connection startup`
Dedicated Connection	
Local Port	Installers choice. Must match the panel configuration.
Flush Mode Input Buffer (Line to Network)	
On Active Connection	`Enable`
On Passive Connection	`Enable`
At Time to Disconnect	`Enable`
Flush Mode Input Buffer (Network to Line)	
On Active Connection	`Enable`
On Passive Connection	`Enable`
At Time to Disconnect	`Enable`
Packing Algorithm	
Packing Algorithm	`Disable`
Additional Settings	
Disconnect Mode	`Ignore`
Check for Cntl-D	`Disable`
Port Password	`Disable`
Telnet Mode	`Disable`
Inactivity Timeout	`Enable`

RS-232 Connection

To communicate with an RS-232 device, you must use a Lantronix® bridge, UDS100 Device Server. This device allows messages sent by the ATS panel's RS-232 connector to be received by the Facility Commander ethernet connection.

If installers decide to provide their own RS-232 cable, they should consider:

- The wire carrying the CTS (Clear-To-Send) signal on the RS-232 cable should be disconnected at the panel.
- The wires carrying the RTS/CTS (Request-To-Send) signal on the RS-232 should be wired together at the panel.
- The cable should be constructed as a "null modem cable", which is also known as a crossover cable, This means the transmit and receive signals should be crossed, so the transmit signal from the panel becomes the receive signal at the other end of the cable.

Configuring Intrusion Panels

Use the Intrusion Panels page to add, edit, copy, and delete records. Refer to the following sections for instructions:

- *Viewing Intrusion Panels*
- *Adding Intrusion Inputs* on page 267

Viewing Intrusion Panels

➤ **To view intrusion panels, follow these steps:**

1. Select **Device Management**.
2. Select **Intrusion Panels**. The Intrusion Panels page as shown in Figure 158 displays.

Figure 158. Intrusion Panels page

Adding Intrusion Panels

➤ **To add an intrusion panel, follow these steps:**

1. Select **Device Management**, and then **Intrusion Panels**. The Intrusion Panels page displays.
2. Click **Add Intrusion Panel**. The Configure Intrusion Panel page as shown in Figure 159 displays.

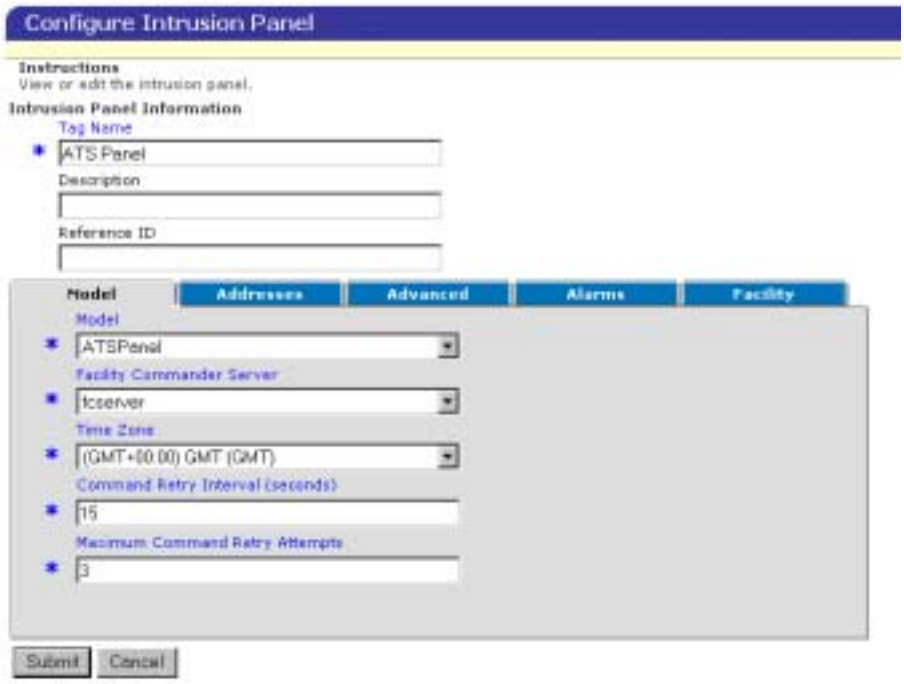


Figure 159. Intrusion Panel page

3. Enter the information described in Table 101. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 101. Intrusion Panel fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

Model Tab

Figure 160. Intrusion Panel — Model tab

5. Select the **Model** tab as shown in Figure 160 and enter the information described in Table 102. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 102. Configure Intrusion Panel fields and descriptions

Field Name	REQ	Description
Model	✔	Use the drop-down list to select the model name.
Facility Commander Server	✔	Use the drop-down list to select the main Facility Commander that controls communication with this intrusion panel.
Time Zone	✔	Use the drop-down list to select the time zone for this server. This time zone displays on the Alarm Monitor and Event Monitor. The default time zone setting is GMT.
Command Retry Interval (seconds)	✔	Enter the number of seconds to wait before trying to re-send a command, such as a query for status of outputs, to the intrusion panel. The default value is two seconds.
Maximum Command Retry Attempts	✔	Enter the maximum number of times to try re-sending a command to the intrusion panel. The default value is three.

Addresses Tab

Figure 161. Intrusion Panel — Addresses tab

6. Select the **Addresses** tab as shown in and enter the information described in Table 103. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 103. Configure Intrusion Panel fields and descriptions

Field Name	REQ	Description
IP Address or Host Name	✔	• **Ethernet**: Enter the IP address or host name of the intrusion panel. • **RS-232**: Enter the IP address or host name of the Lantronix UDS 100 device. The host name is case-sensitive.
Port	✔	• **Ethernet**: Enter the port number configured in the intrusion panel, such as 3001 • **RS-232**: Enter the port number configured in the Lantronix UDS 100 device.
Panel Address	✔	Enter the intrusion panel address.
Connection Type		
Ethernet	✔	Select this check box to use an Ethernet connection.
RS-232	✔	Select this check box to use an RS-232 connection.
Status Polling Interval (Milliseconds)		Enter the number of milliseconds indicating the frequency Facility Commander polls the intrusion panel. The range is from 200 to 30,000 milliseconds. The default value is 500 milliseconds.

Advanced Tab

Figure 162. Intrusion Panel — Advanced tab

7. Select the **Advanced** tab as shown in Figure 159 and enter the information described in Table 104. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 104. Configure Intrusion Panel fields and descriptions

Field Name	REQ	Description
User Name		Enter a valid user name.
Password	✔	Enter the password used to access the intrusion panel. The password must match the password defined on the intrusion panel. The password must be ten digits. The format is: 0000000000. The password must be correct because if Facility Commander tries to connect using an incorrect password, the intrusion panel locks out any further attempts. The password will have to be reset by an intrusion support engineer.
Confirm Password	✔	Enter the password again for confirmation.
Encryption Enabled		Select this check box if you want to enable encryption between Facility Commander and the intrusion panel.
Encryption Key		Obtain the encryption key from the vendor's web site. The format is: 000-000-000-000-000-000-000-000-000-000-000-000-000-000-000-000. There are 16 groups of three numbers, separated by a hyphen.The range of numbers is from 000 to 255. If the number 2 is given as part of the encryption key, you must enter 002.

Alarms Tab

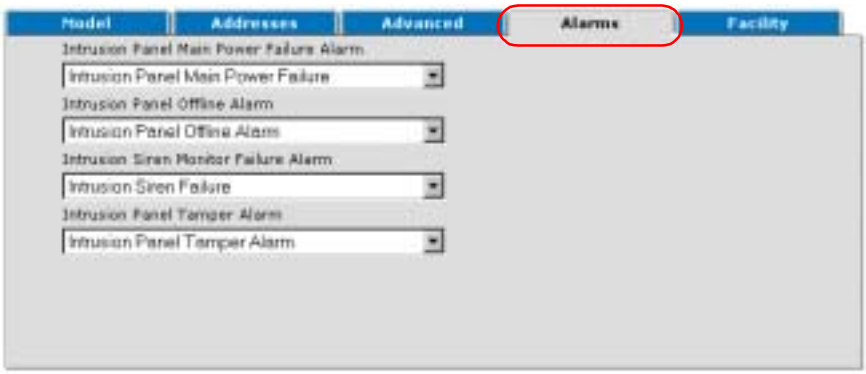


Figure 163. Intrusion Panel — Alarms tab

8. Select the **Alarms** tab as shown in Figure 160 and enter the information described in Table 105. A check mark indicates a required field. Continue to the next tabbed page.

Table 105. Configure Intrusion Panel fields and descriptions

Field Name	REQ	Description
Intrusion Panel Main Power Failure Alarm		Use the drop-down list to select the appropriate alarm profile to use when the intrusion panel main power fails.
Intrusion Panel Offline Alarm		Use the drop-down list to select the appropriate alarm profile to use when the intrusion panel is offline.
Intrusion Siren Monitor Failure Alarm		Use the drop-down list to select the appropriate alarm profile to use when the intrusion siren monitor fails.
Intrusion Panel Tamper Alarm		Use the drop-down list to select the appropriate alarm profile to use when someone tampers with an intrusion panel.

Facility Tab

Figure 164. Intrusion Panel — Facility tab

9. Select the **Facility** tab as shown in Figure 164 and enter the information described in Table 106. A check mark indicates a required field.

Table 106. Configure Intrusion Panel fields and descriptions

Field Name	REQ	Description
Assigned to		Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Configure Intrusion Areas

Use the Intrusion Areas page to view, add, edit, copy, or deleted intrusion area records. Refer to the following sections for instructions:

- *Viewing Intrusion Areas*
- *Adding Intrusion Areas* on page 258

Viewing Intrusion Areas

➤ **To view the intrusion area records, follow these steps:**

1. Select **Device Management**.
2. Select **Intrusion Areas**. The Intrusion Areas page as shown in Figure 165 displays.

Figure 165. Intrusion Areas page

Adding Intrusion Areas

Click icon to see demo.

➤ **To add an intrusion area, follow these steps:**

1. Select **Device Management**, and then **Intrusion Areas**. The Intrusion Areas page displays.
2. Click **Add Intrusion Area** and the Configure Intrusion Area page as shown in Figure 166 displays.

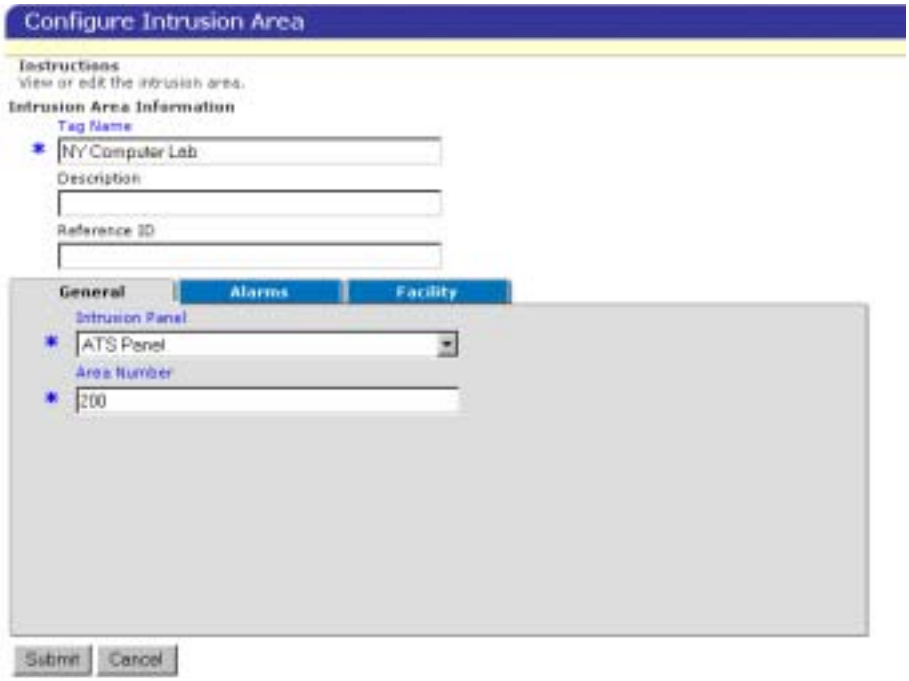


Figure 166. Configure Intrusion Area page

3. Enter the information described in Table 107. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 107. Configure Intrusion Area fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.

General Tab

Figure 167. Configure Intrusion Area — General tab

5. Enter the information described in Table 108. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 108. Configure Intrusion Area fields and descriptions

Field Name	REQ	Description
Intrusion Panel	✔	Use the drop-down list to select the intrusion panel associated with this intrusion area.
Area Number	✔	Enter a number from 1 to 256 that corresponds to the area number configured in the intrusion panel.

Alarms Tab

Figure 168. Configure Intrusion Area — Alarms tab

6. Enter the information described in Table 109. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 109. Configure Intrusion Area fields and descriptions

Field Name	REQ	Description
Intrusion Area Failed to Arm		Use the drop-down list to select the appropriate alarm profile to use when a command is sent to arm an area and an active input prevents the operation. This is the generated alarm.
Intrusion Area State Armed and In Alarm		Use the drop-down list to select the appropriate alarm profile to use when an area is armed and an input becomes active. This is the generated alarm.

Facility Tab

Figure 169. Configure Intrusion Area — Facility tab

7. Select the **Facility** tab as shown in Figure 169 and enter the information described in Table 110. A check mark indicates a required field.

Table 110. Configure Intrusion Area fields and descriptions

Field Name	REQ	Description
Assigned to		Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Configuring DGPs

Use the Configure Intrusion DGPs (data gathering panel) page to add, edit, copy, and delete records. Refer to the following sections for instructions:

- *Viewing Intrusion DGPs* on page 262
- *Adding Intrusion DGPs* on page 263

Viewing Intrusion DGPs

➤ **To view intrusion DGPs, follow these steps:**

1. Select **Device Management**.
2. Select **Intrusion DGPs**. The Intrusion DGPs page as shown in Figure 170 displays.

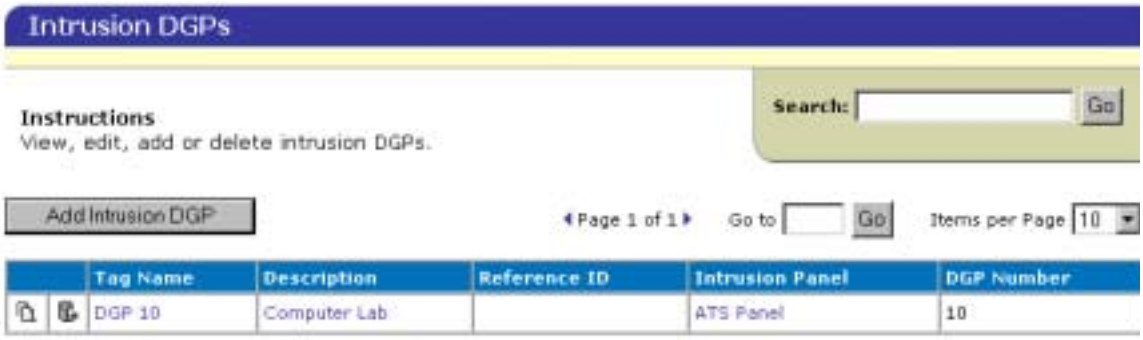


Figure 170. Intrusion DGPs page

Adding Intrusion DGPs

➤ **To add an intrusion DGP, follow these steps:**

1. Select **Device Management**, and then **Intrusion DGPs**. The Intrusion DGPs page displays.
2. Click **Add Intrusion DGP** and the Configure Intrusion DGP page as shown in Figure 171 displays.

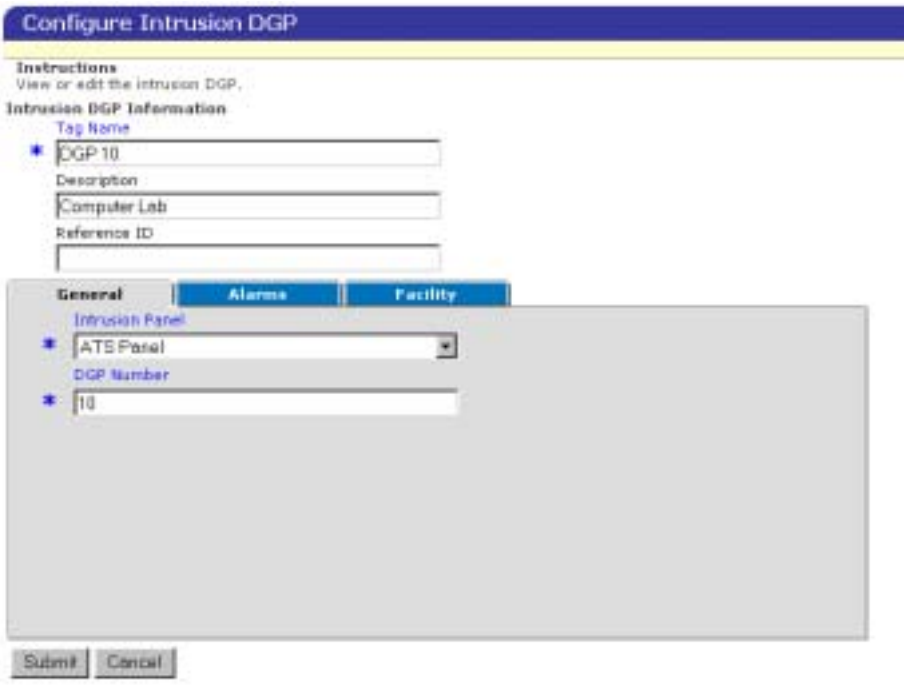


Figure 171. Configure Intrusion DGP page

3. Enter the information described in Figure 111. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 111. Configure Intrusion DGP fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

Alarms Tab

Figure 172. Configure Intrusion DGP — Alarms tab

5. Enter the information described in Table 112. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 112. Configure Intrusion DGP fields and descriptions

Field Name	REQ	Description
Intrusion DGP Main Power Failure Alarm		Use the drop-down list to select the appropriate alarm profile to use when there is a DGP main panel failure. This is the generated alarm.
Intrusion DGP Offline Alarm		Use the drop-down list to select the appropriate alarm profile to use when the DGP goes offline. This is the generated alarm.
Intrusion DGP Siren Monitor Failure Alarm		Use the drop-down list to select the appropriate alarm profile to use when the intrusion DGP siren monitor fails. This is the generated alarm.
Intrusion DGP Tamper Alarm		Use the drop-down list to select the appropriate alarm profile to use when tampering with the DGP has occurred. This is the generated alarm.

Facility Tab

Figure 173. Configure Intrusion DGP — Facility tab

6. Select the **Facility** tab as shown in Figure 169 and enter the information described in Table 110. A check mark indicates a required field.

Table 113. Configure Intrusion DGP fields and descriptions

Field Name	REQ	Description
Assigned to		Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Configure Intrusion Input

Use the Configure Intrusion Input page to view, add, edit, copy, or deleted intrusion input records. Refer to the following sections for instructions:

- *Viewing Intrusion Input*
- *Adding Intrusion Inputs* on page 267

Viewing Intrusion Input

➤ **To view the intrusion input, follow these steps:**

1. Select **Device Management**.
2. Select **Intrusion Inputs**. The Intrusion Inputs page as shown in Figure 174 displays.

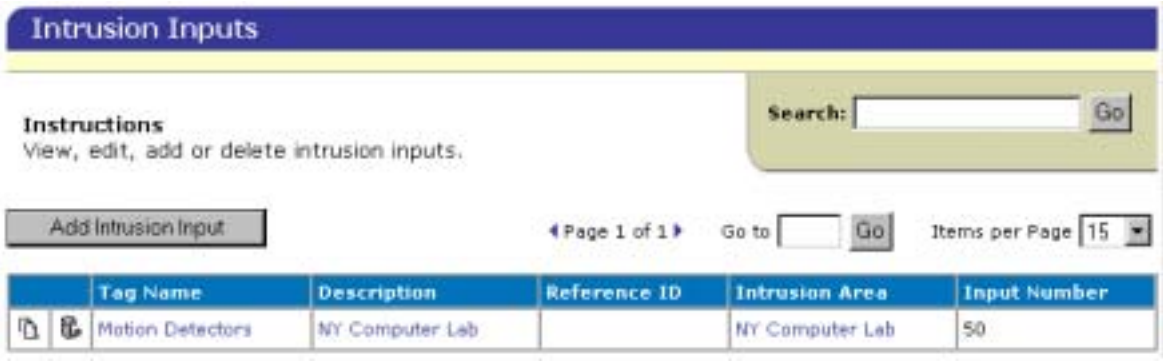


Figure 174. Intrusion Inputs page

Adding Intrusion Inputs

➤ **To add an intrusion input, follow these steps:**

1. Select **Device Management**, and then **Intrusion Inputs**. The Intrusion Inputs page displays.
2. Click **Add Intrusion Input.** The Configure Intrusion Inputs page shown in Figure 175 displays.

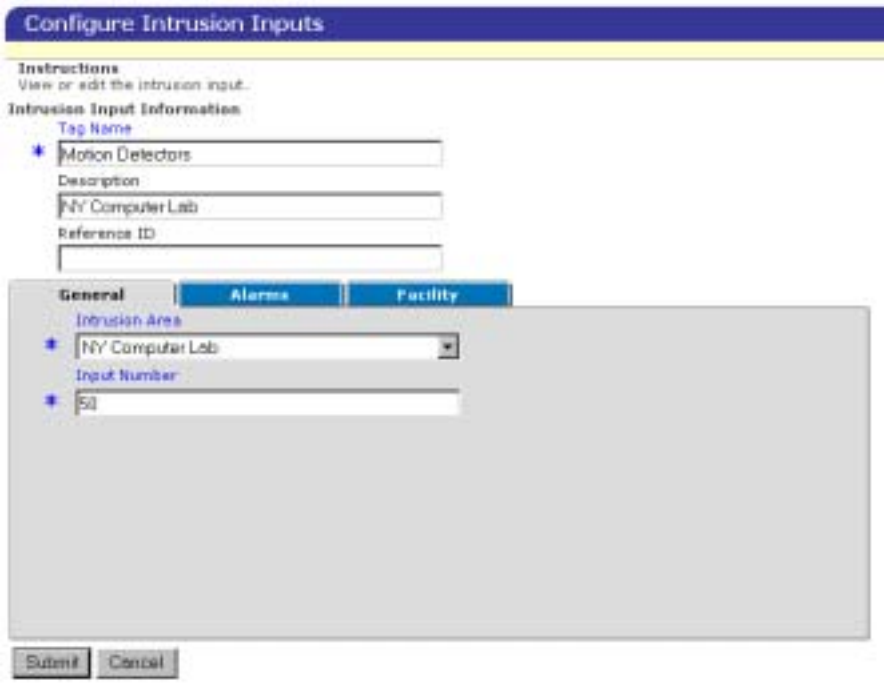


Figure 175. Configure Intrusion Inputs page

3. Enter the information described in Table 114. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 114. Configure Intrusion Inputs fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

General Tab

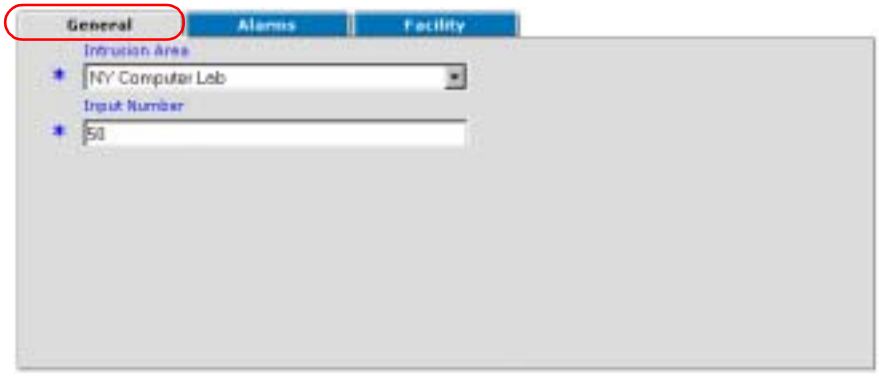


Figure 176. Configure Intrusion Inputs — General tab

5. Enter the information described in Table 115. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 115. Configure Intrusion Inputs fields and descriptions

Field Name	REQ	Description
Intrusion Area	✔	Use the drop-down list to select the intrusion area associated with this intrusion inputs. This number must match the area configured for this input.
Input Number	✔	Enter the input number that to represent this intrusion inputs.

Alarms Tab

Figure 177. Configure Intrusion Inputs — Alarms tab

6. Enter the information described in Table 116. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 116. Configure Intrusion Inputs fields and descriptions

Field Name	REQ	Description
Intrusion Input Alarm		Use the drop-down list to select the appropriate alarm profile to use when the input is in an alarm state. This is the generated alarm.
Intrusion Input Bypassed Alarm		Use the drop-down list to select the appropriate alarm profile to use when the input is bypassed. This is the generated alarm.
Intrusion Input Fault Alarm		Use the drop-down list to select the appropriate alarm profile to use when the input is a fault state. This is the generated alarm.
Intrusion Input Tamper Alarm		Use the drop-down list to select the appropriate alarm profile to use when tampering with the intrusion input has occurred. This is the generated alarm.

Facility Tab

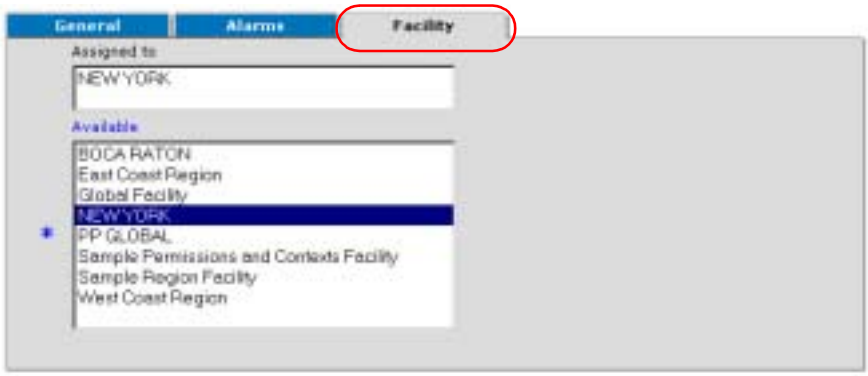


Figure 178. Configure Intrusion Inputs — Facility tab

7. Select the **Facility** tab as shown in Figure 178 and enter the information described in Table 117. A check mark indicates a required field.

Table 117. Configure Intrusion Inputs fields and descriptions

Field Name	REQ	Description
Assigned to		Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Configure Intrusion Outputs

Use the Configure Intrusion Outputs page to view, add, edit, copy, or deleted intrusion outputs records. Refer to the following sections for instructions:

- *Viewing Intrusion Outputs*
- *Adding Intrusion Outputs* on page 272

Viewing Intrusion Outputs

➤ **To view the intrusion outputs, follow these steps:**

1. Select **Device Management**.
2. Select **Intrusion Outputs**. The Intrusion Outputs page as shown in Figure 179 displays.

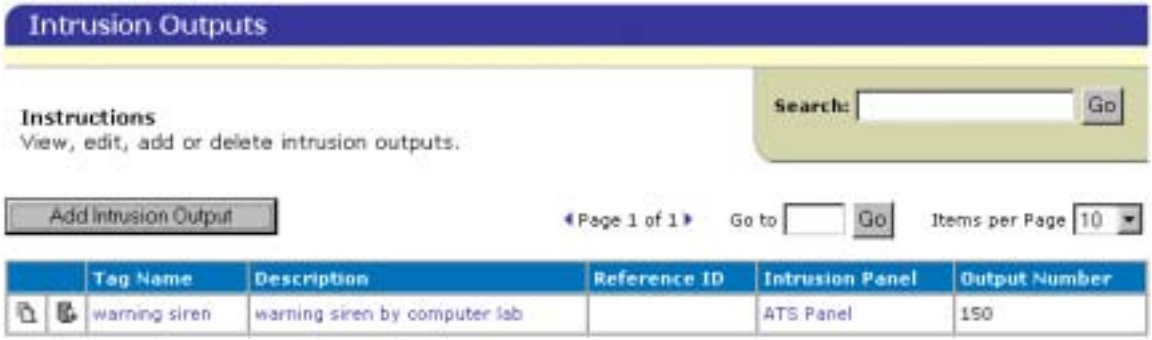


Figure 179. Intrusion Outputs page

Adding Intrusion Outputs

➤ **To add an intrusion output, follow these steps:**

1. Select **Device Management**, and then **Intrusion Outputs**. The Intrusion Outputs page displays.
2. Click **Add Intrusion Output.** The Configure Intrusion Outputs page shown in Figure 180 displays.

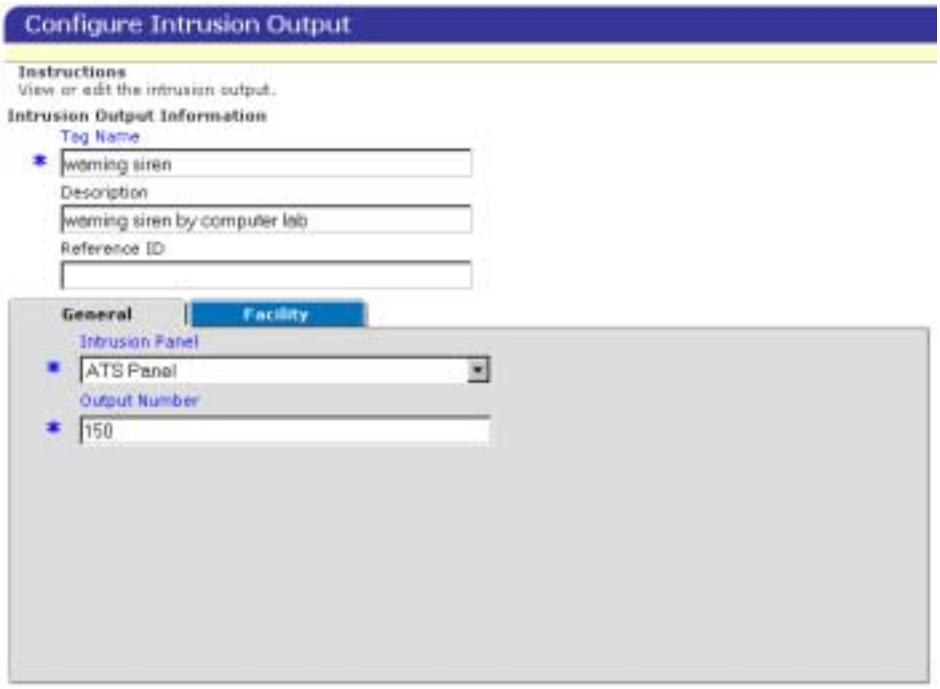


Figure 180. Configure Intrusion Outputs page

3. Enter the information described in Table 118. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 118. Configure Intrusion Outputs fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

General Tab

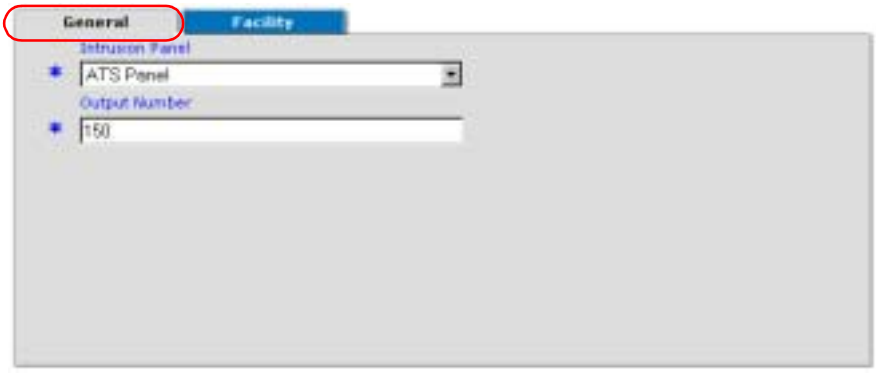


Figure 181. Configure Intrusion Outputs — General tab

5. Enter the information described in Table 119. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 119. Configure Intrusion Outputs fields and descriptions

Field Name	REQ	Description
Intrusion Panel	✔	Use the drop-down list to select the intrusion panel associated with this intrusion outputs. This number must match the area configured for this output.
Output Number	✔	Enter the output number to represent this intrusion output.

Facility Tab

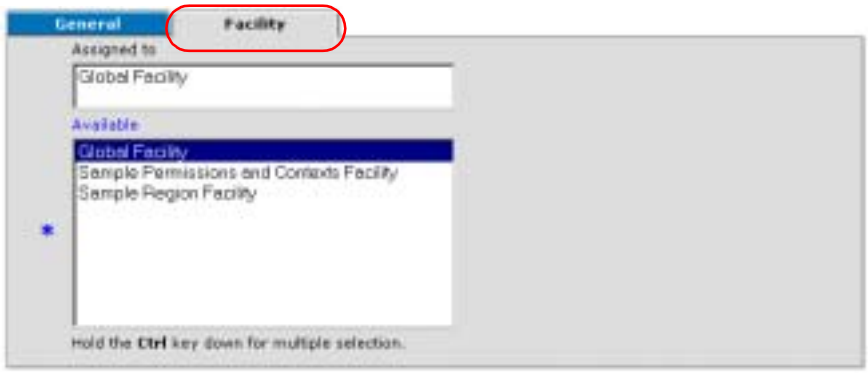


Figure 182. Configure Intrusion Output — Facility tab

6. Select the **Facility** tab as shown in Figure 182 and enter the information described in Table 120. A check mark indicates a required field.

Table 120. Configure Intrusion Output fields and descriptions

Field Name	REQ	Description
Assigned to		Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Configure Intrusion Keypads

Use the Configure Intrusion Keypads page to view, add, edit, copy, or deleted intrusion outputs records. Refer to the following sections for instructions:

- *Viewing Intrusion Keypads*
- *Adding Intrusion Outputs* on page 272

Viewing Intrusion Keypads

➤ **To view the intrusion keypads, follow these steps:**

1. Select **Device Management**.
2. Select **Intrusion Keypads**. The Intrusion Keypads page as shown in Figure 183 displays.

Figure 183. Intrusion Keypad page

Adding Intrusion Keypads

➤ **To add an intrusion keypad, follow these steps:**

1. Select **Device Management**, and then **Intrusion Keypads**. The Configure Intrusion Keypad page displays.
2. Click **Add Intrusion Keypad.** The Configure Intrusion Keypad page shown in Figure 184 displays.

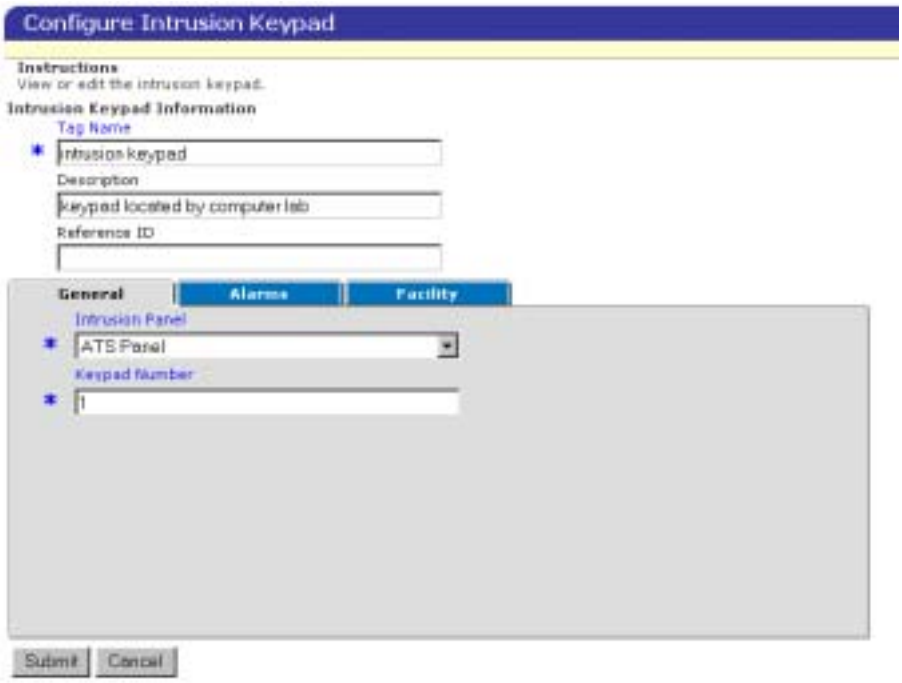


Figure 184. Configure Intrusion Outputs page

3. Enter the information described in Table 121. A check mark indicates a required field. Continue to enter information on the tabbed pages.
4. Click **Submit** to save the record.

Table 121. Configure Intrusion Keypad fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Enter a unique name to identify this item. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Reference ID		Enter a name to associate this item to a blue print or wiring diagram. Use 1-20 characters.

General Tab

Figure 185. Configure Intrusion Keypad — General tab

5. Enter the information described in Table 119. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 122. Configure Intrusion Outputs fields and descriptions

Field Name	REQ	Description
Intrusion Panel	✔	Use the drop-down list to select the intrusion panel associated with this intrusion outputs. This number must match the area configured for this output.
Keypad Number	✔	Enter the keypad number to represent this intrusion keypad. The number must be between 1 and 16.

Alarms Tab

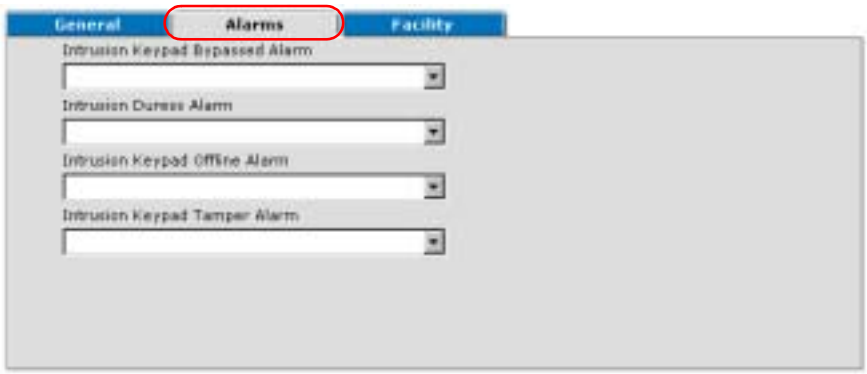


Figure 186. Configure Intrusion Keypad — Alarms tab

6. Enter the information described in Table 123. A check mark indicates a required field. Continue to enter information on the tabbed pages.

Table 123. Configure Intrusion Keypad fields and descriptions

Field Name	REQ	Description
Intrusion Keypad Bypassed Alarm		Use the drop-down list to select the appropriate alarm profile to use when there is an attempt to bypass the keypad. This is the generated alarm.
Intrusion Duress Alarm		Use the drop-down list to select the appropriate alarm profile to use when there is a duress alarm. This is the generated alarm.
Intrusion Keypad Offline Alarm		Use the drop-down list to select the appropriate alarm profile to use when the keypad goes offline. This is the generated alarm.
Intrusion Keypad Tamper Alarm		Use the drop-down list to select the appropriate alarm profile to use when tampering with the intrusion keypad has occurred. This is the generated alarm.

Facility Tab

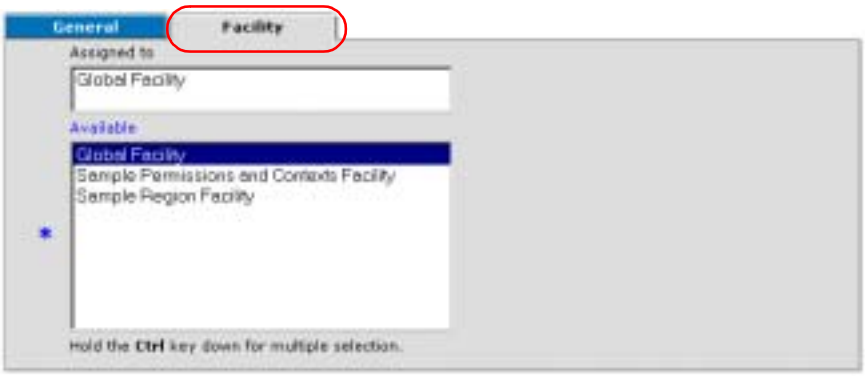


Figure 187. Configure Intrusion Output — Facility tab

7. Select the **Facility** tab as shown in Figure 182 and enter the information described in Table 120. A check mark indicates a required field.

Table 124. Configure Intrusion Output fields and descriptions

Field Name	REQ	Description
Assigned to		Items can belong to more than one facility. This is a read-only field and cannot be edited.
Available	✔	Use to assign or change the facility membership for this item. The facilities that display in this list depend on the operator's context and permissions. • To assign the item to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • If this item is already assigned to a facility listed in the Assigned To list, press the **Ctrl** key before selecting the new facility assignment. • To assign the item to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Chapter 14. Creating Symbol Schemes

This chapter describes how to create a symbol scheme with icons representing access points, cameras, and more.

In this chapter:

Overview on page 282
Using the Symbol Editor on page 283
Creating a Symbol Scheme on page 287
Managing Symbol Editor Files on page 290

Overview

The Symbol Editor and Graphics Editor allow you to use site maps of your premises and associate symbols (graphic images or icons) to device types such as access points, camera types, digital inputs, logical inputs, and digital outputs. When an alarm event occurs, one or more of the symbols changes its appearance based on the alarm state condition, if configured to do so.

A symbol scheme is created by selecting a device type, an icon to represent the initial state of the device, and a collection of icons representing the different state attributes and state conditions.

- **Device types** represent door access points, cameras, logical inputs, digital inputs, digital outputs, intercom, and intrusion devices.
- **State attributes** represent the type of alarm generated, such as an Invalid Badge or Door Forced alarm and more. The state attributes that display are appropriate for the selected device type.
- **State conditions** represent the state of the alarm point, such as set, reset and tamper.

As an example, the Door Access Point includes state attributes, such as Door Forced and others. The state attributes for a Door Forced alarm include the conditions — set and reset. Each state attribute and state condition is represented on the site map by a different symbol, such as:

- initial state is represented by a gray door icon
- set condition is represented by a red door icon
- reset condition is represented by a green door icon

Refer to *State Associations and Conditions* on page 291 for a complete list.

Before you can associate the symbols with event point types, you need to import access points, inputs, input groups, and outputs from Picture Perfect or Secure Perfect. Refer to *Importing Records* on page 61 for more information. When the devices are imported, the system administrator selects which graphic display to use when an alarm event is generated.

To create site maps and link alarms, use the following tools:

- **Symbol Editor** allows you to associate device types, such as access points and cameras with symbols representing alarm state conditions. Use the Symbol Editor to create, delete, save, upload, and download symbol schemes.
  - Refer to *Using the Symbol Editor* on page 283 for more information.
- **Graphics Editor** allows you to place symbols representing devices such as doors and cameras, and more on site maps. Start with a floor plan and place symbols on the map to indicate their location, and then link these symbols to event sources. In addition, you can add text to create labels and print the site maps.
  - Refer to *Using the Graphics Editor* on page 299 for more information.

- **Graphics Viewer** provides a graphical view of the premises and allows an operator to locate alarm events as they occur, such as doors and cameras. Operators can issue commands and launch applications, such as locking and unlocking doors and viewing video.
  - Refer to *Viewing Graphic Displays* on page 331 for more information.

Using the Symbol Editor

Use the Symbol Editor shown in Figure 174 to associate symbols with device types, such as cameras, door access points, and more. The symbols represent the state condition, such as set and reset, for each device type and condition. *This collection of symbols and specific attributes represents a symbol scheme.*

To define a scheme, select a device type and assign a symbol to each state condition. To create customized symbols, graphics in several formats are supported, including GIF and JPG. The recommended graphic size is 32 x 32 pixels.

Once a scheme is created, use the **Upload** button to copy the scheme to the Facility Commander server. Once the scheme is copied to the server, the scheme is ready to use with the Graphics Editor and is also available to other users.

The symbol schemes are used with the Graphics Editor to create display maps. Refer to *Using the Graphics Editor* on page 299 for more information.

➤ **To open the Symbol Editor, follow these steps:**

1. From the Facility Commander Launcher window, select **Launch** and **Symbol Editor**, or select the **Symbol Editor** icon from the Editors toolbar.
2. The Symbol Editor shown in Figure 174 on page 284 window displays.

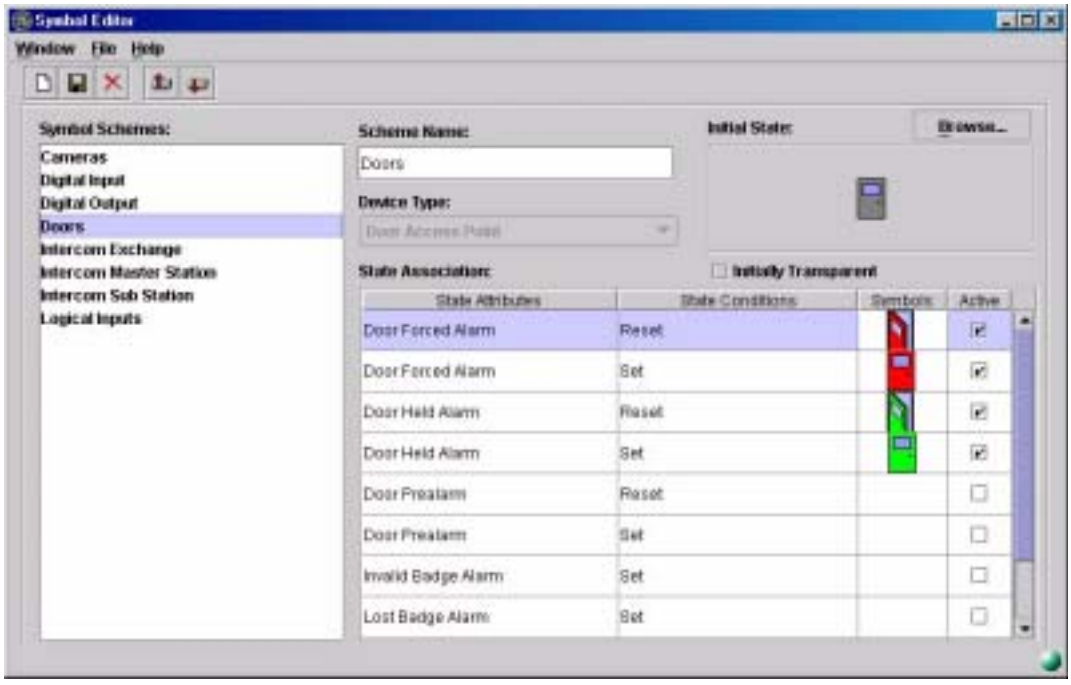


Figure 174. Symbol Editor window

Table 55 lists and describes the Symbol Editor fields and buttons.

Table 55. Symbol Editor fields and description

Field Name	Description
Title Bar	Displays Symbol Editor and the window instance number. Refer to *Managing Multiple Windows* on page 27 for more information.
New	Use to create a new symbol scheme. Refer to *Creating a Symbol Scheme* on page 287 for more information.
Save	Use to save a symbol scheme to the local computer. To publish the scheme for use with the Graphics Editor, the scheme must be uploaded to the Facility Commander server. Refer to Upload and Download for more information.
Delete	Use to delete a symbol scheme from the local computer. To delete a scheme from the Facility Commander server, refer to *Deleting a Symbol Scheme* on page 291.

Table 55. Symbol Editor fields and description (Continued) (Continued)

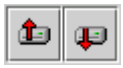
Field Name	Description
Upload and Download 	Use to upload new or modified symbol schemes to the Facility Commander server. Use to download a symbol scheme from the server to the local computer to make changes. After the scheme has been modified and you are ready to publish the changes, click **Upload**. Refer to *Uploading a Symbol Scheme* on page 290 and *Downloading a Symbol Scheme* on page 290 for more information.
Symbol Schemes	Displays a list of previously defined symbol schemes in alphabetical order.
Scheme Name	Use this field to enter a name identifying a new symbol scheme. Use up to 128 characters. Scheme names cannot contain any of the following characters: \, /, :, *, ?, “, <, >, or |.
Initial State Icon	Displays the symbol representing the alarm in its initial state condition. This symbol displays in the Graphics Editor Device Palette. Refer to *Device Palette* on page 301 for more information.
Browse	Click **Browse** to locate the folder with the symbols you want to use. Refer to Figure 175 on page 287.
Device Type	Use this drop-down list to select a device type, which includes: • Camera • Digital Input • Digital Output • Door Access Point • Logical Input • Intercom Exchange • Intercom Master Station • Intercom Substation • Intrusion Area • Intrusion DGP • Intrusion Keypad • Intrusion Input • Intrusion Output • Monitor
State Association	
Initially Transparent	Select this check box to make the symbol for the initial state icon transparent until an alarm event occurs.

Table 55. Symbol Editor fields and description (Continued) (Continued)

Field Name	Description
State Attributes	Displays the attributes of the point type. If Door Access Point is selected, the attributes include Door Forced, Door Held, and different badge events. Refer to Table 57 for a complete list.
State Conditions	Displays the appropriate condition for the state attribute. Refer to Table 57 for a complete list.
Symbols	Displays the symbol associated with the state condition. Use the **Active** check box to select the symbol.
Active	Click the **Active** check box and the Attach window displays. Select the graphic image you want to represent the state condition. Click **Attach**. A check mark displays to indicate this symbol. When the **Active** check box is selected, the graphic image can be used when creating graphic displays. If you clear the check box to remove the symbol, it will no longer appear on the graphic displays when the alarm condition changes.
Status Bar	Displays an icon indicating if the system with the Graphics Editor is connected to the Facility Commander server and the layer number currently active (or visible). • Green indicates the Graphics Editor is communicating with the server. • Red indicates the Graphics Editor is no longer communicating with the server.

Creating a Symbol Scheme

Click icon to see demo.

If you are creating a symbol scheme for an intrusion area, refer to *Creating an Intrusion Symbol Scheme* on page 288 *for more information.*

➤ **To create a symbol scheme, follow these steps:**

1. From the **Facility Commander Launcher**, select **Launch** and **Symbol Editor**, or select the Symbol Editor icon from the Editors toolbar. The Symbol Editor window shown in Figure 174 on page 284 displays.
2. Enter the name of the scheme in the **Scheme Name** field.
3. Select the type from the **Device Type** drop-down list. The appropriate alarm state attributes and state conditions display for each device type.
4. Click **Browse** to display the Attach window shown in Figure 175.

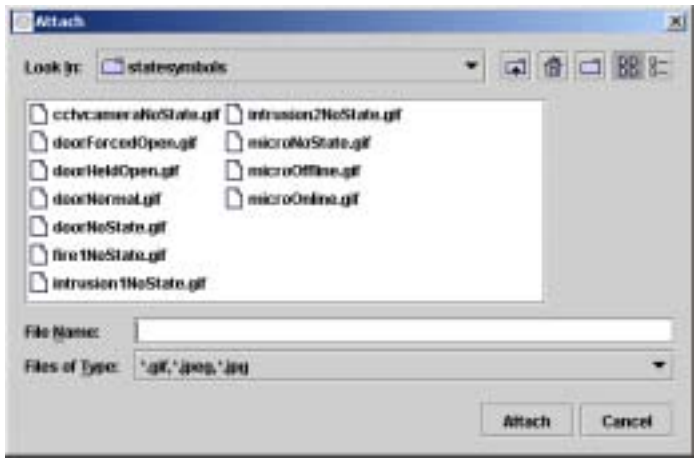


Figure 175. Attach window with available symbols

5. Select the file you want to use as a symbol to represent the state condition. Click **Attach**. The symbol displays in the **Initial State Icon** window. The Graphics Editor will use this image to represent the scheme.
6. Select the **Active** check box to display the Attach window. Select the image you want to display for each state condition. Click **Attach**. This image displays on the map when an alarm is generated and the state condition changes. The **Active** check box displays a check mark indicating this image has been associated with the alarm state condition.
7. Click **Save** when you are finished. If you want to create another symbol scheme, click **New** to clear the information and continue making new selections.

To create multiple schemes using the same point types, select the scheme you want to use, change the scheme name, and click **Save**. From the Windows menu, click **Exit** to close the Symbol Editor window.

Creating an Intrusion Symbol Scheme

A symbol scheme for an intrusion area is different than symbol schemes for other devices. Instead of using an icon representing a device, the intrusion area is represented by a pattern.

➤ **To create an intrusion symbol scheme, follow these steps:**

1. From the Facility Commander Launcher, select Launch and Symbol, or select the Symbol Editor icon from the Editors toolbar. The Symbol Editor window shown in Figure 174 on page 284 displays.
2. Enter the name of the scheme in the **Scheme Name** field.
3. Select Intrusion Area from the **Device Type** drop-down list. The appropriate alarm state attributes and state conditions display.
4. Click **Browse** to display the Attributes Panel window shown in Figure 176.

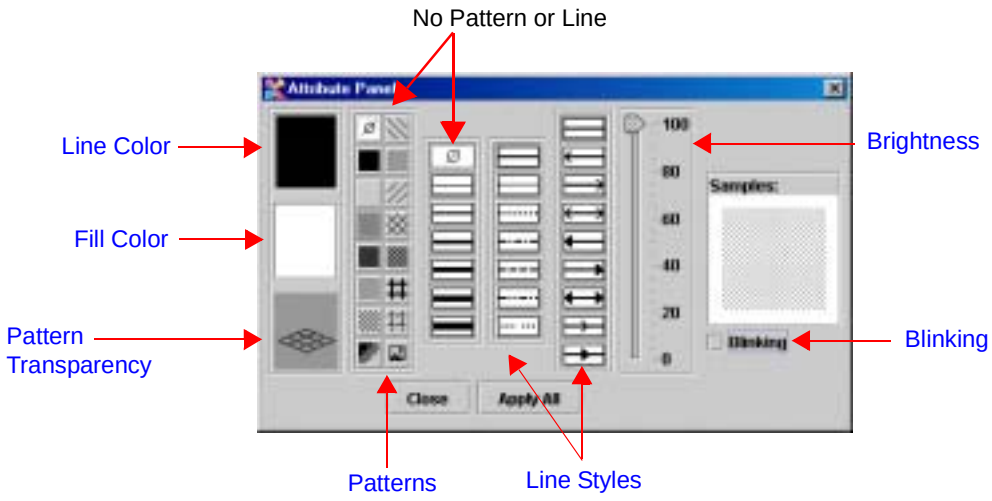


Figure 176. Attributes Panel window

5. Select the attributes that you want to apply, such as color, pattern, line, and brightness. The selection displays in the Samples pane. Refer to Table 56 for instructions.
6. Select the **Blinking** check box if you want the pattern to blink when an alarm is generated.
7. Click **Apply All** to apply the selected attributes. The symbol displays in the **Initial State Icon** window. The Graphics Editor will use this image to represent the scheme.
8. Select the **Active** check box to display the Attribute Panel window. Select the attributes that you want to apply, such as color, pattern, line, and brightness. The selection displays in the Samples pane.
   - This image displays on the map when an alarm is generated and the state condition changes.

- The **Active** check box displays a check mark indicating this image has been associated with the alarm state condition.

9. Click **Save** when you are finished. If you want to create a symbol scheme for another intrusion area, click **New** to clear the information and continue making new selections.

Table 56 lists and describes the elements in the Graphic Attributes window.

Table 56. Graphic Attributes elements and description

Element	Description
Line Color	Click **Line Color** to display the Edit Line Color palette. Select a line color and click **OK**.
Fill Color	Click **Fill Color** to display the Fill Line Color palette. Select a fill color and click **OK**.
Pattern Transparency	Click to display the fill color in the drawn image or a shape drawn with the Create Hyperlink Area tool. Click to remove the fill color. When you remove the fill color, only the pattern displays with a white background.
Patterns	Click to apply a pattern to the image. Use **Line Color** to select a color for the pattern.
Line Styles	Select the line type such as, solid, dotted, or arrows.
Brightness	Use the slider to indicate the brightness of the line and fill color. 100 is the brightest.
Blinking	Select this check box if you want the area to “blink” when it is in an alarm state.

Managing Symbol Editor Files

Symbol schemes are stored on the local system, until they are uploaded to the server system for centralized storage and backup. Once the files are uploaded they are available to use with the Graphics Editor to create site maps and associate symbols.

After a symbol scheme has been uploaded to the server system, if you need to modify the symbol scheme, make sure you download the most current version before making changes.

Refer to the following sections for more information:

- *Uploading a Symbol Scheme*
- *Downloading a Symbol Scheme* on page 290
- *Deleting a Symbol Scheme* on page 291

Uploading a Symbol Scheme

➤ **To upload a symbol scheme to the Facility Commander server, follow these steps:**

1. From the **Symbol Schemes** column, select the scheme name you want to upload to the server.
2. Select **File** and then **Upload**, or select the **Upload** icon form the toolbar. A window with this message displays: **Are you sure you want to upload current scheme?**
   - If the scheme has already been uploaded to the server, this message displays: **Are you sure you want to overwrite the server symbol scheme - *file name*?**
3. Click **Yes** to upload the symbol scheme to the server for distribution.

Next, use the Graphics Editor to associate the symbol scheme to a map. Refer to *Using the Graphics Editor* on page 299 for instructions.

Downloading a Symbol Scheme

➤ **To download a symbol scheme, follow these steps:**

1. From the **File** menu, select **Download** or select the **Download** icon from the toolbar. The window shown in Figure 177 on page 291 displays.

Figure 177. Input window

2. Use the drop-down list to select which symbol scheme you want to download from the server. Click **OK**. The file is copied from the server system to your local system.

Deleting a Symbol Scheme

➤ **To delete a symbol scheme from the local system, follow these steps:**

1. Select the scheme you want to delete from the Symbol Schemes list. The information for this record displays.
2. From the **File** menu, select **Delete** or select the **Delete** icon from the toolbar. A window displays a message asking: **Are you sure you want to remove this scheme?** Click **Yes** to remove the scheme.
   - This removes the symbol scheme from the local system only. If it has been uploaded to the server system and you want to delete it, the file must be removed using Delete Resources.
3. From the **File** menu, select **Exit** to close the Symbol Editor window.

State Associations and Conditions

Table 57 lists and describes the event sources, state attributes, and conditions.

Table 57. Event Sources, State Attributes, and Conditions

Event Source	State Attributes	Conditions
Camera	Initial State	
	Motion Detection	Set, Reset
	Video Loss	Set, Reset
Intercom Exchange	Initial State	
	Communication Failure	Set, Reset

Table 57. Event Sources, State Attributes, and Conditions (Continued)

Event Source	State Attributes	Conditions
	Intercom Exchange Reset	Set
Intercom Master Station	Initial State	
	Busy	Set
	Call Answered	Set
	Call Connected	Set
	Call Ringing	Set
	Call To Busy	Set
	Call To Private	Set
	Disconnected	Set
	Reset	Set
Intercom Sub Station	Initial State	
	Busy	Set
	Call Answered	Set
	Call Button Alarm	Set, Reset
	Call Button Event	Set
	Call Connected	Set
	Call Ringing	Set
	Call To Busy	Set
	Call To Private	Set
	Disconnected	Set
	Reset	Set
Intrusion Area	Initial State	
	State Armed All Clear	Set
	State Armed and In Alarm	Set, Reset
	State Disarmed	Set
	State Unknown	Set

Table 57. Event Sources, State Attributes, and Conditions (Continued)

Event Source	State Attributes	Conditions
Intrusion DGP	Initial State	
	DGP Bypassed	Set, Reset
	DGP Offline Alarm	Set, Reset
	DGP Tamper Alarm	Set, Reset
	Main Panel Failure Alarm	Set, Reset
Intrusion Input	Initial State	
	Input Alarm	Set
	Input Alarm Event	Reset
	Input Bypassed	Set, Reset
	Input Holdup At Night	Set, Reset
	Input Tamper	Set, Reset
Intrusion Keypad	Initial State	
	Intrusion Duress Alarm	Set, Reset
	Intrusion Keypad Bypassed	Set, Reset
	Intrusion Keypad Offline	Set, Reset
	Keypad Tamper Alarm	Set, Reset
Intrusion Output	Initial State *(No state attributes.)*	
Intrusion Panel	Initial State	
	Offline Alarm	Set, Reset
	Tamper Alarm	Set, Reset
Monitor	Initial State *(No state attributes.)*	
Picture Perfect Digital Input	Initial State	
	Input Alarm	Set, Reset, Tamper
Picture Perfect Digital Output	Initial State *(No state attributes.)*	

Table 57. Event Sources, State Attributes, and Conditions (Continued)

Event Source	State Attributes	Conditions
Picture Perfect Door Access Point	Initial State	
	Door Forced Alarm	Set, Reset
	Door Held Alarm	Set, Reset
	Door Prealarm	Set, Reset
	Invalid Badge Alarm	Set
	Lost Badge Alarm	Set
	Suspended Badge Alarm	Set
	Unknown Badge Alarm	Invalid Badge
Picture Perfect Logical Input	Initial State	
	Logical Input Alarm	Set, Reset, Tamper
Secure Perfect Digital Input	Initial State	
	Input Alarm	Set, Reset, Tamper
Secure Perfect Digital Output	Initial State *(No state attributes.)*	
Secure Perfect Door Access Point	Initial State	
	Door Forced Alarm	Set, Reset
	Door Held Alarm	Set, Reset
	Door Prealarm	Set, Reset
	Invalid Badge Alarm	Set
	Lost Badge Alarm	Set
	Reader Supervised Exit Alarm	Set, Reset
	Supervised Reader Alarm	Set, Reset

Table 57. Event Sources, State Attributes, and Conditions (Continued)

Event Source	State Attributes	Conditions
Secure Perfect Logical Input	Initial State	
	Logical Input Alarm	Set, Reset, Tamper

Chapter 15. Creating Graphic Displays

This chapter describes how to create or import a site map and link symbols created with the Symbol Editor to represent access points, cameras, and other devices. Readers should be familiar with using other graphic drawing programs.

In this chapter:

Overview on page 298
Using the Graphics Editor on page 299
Drawing Tools on page 303
Graphic Attributes on page 304
Creating a Graphic Display on page 306
Importing AutoCAD Drawings on page 312
Linking Graphic Displays on page 316
Building Hierarchical Displays on page 318
Working with Layers on page 321
Managing Graphic Display Files on page 324
Editing Graphic Display Records on page 328

Overview

This feature allows you to design site maps of your premises and associate graphic images (symbols) to access points and their locations. When an alarm event occurs, one or more of the icons will change its appearance based on the alarm state condition, if configured to do so.

Table 57 lists the steps needed to complete a graphic display and references to where you will find detailed instructions to complete these tasks.

Table 57. Task Overview

✔	Create symbol scheme and upload to the server. Refer to *Using the Symbol Editor* on page 283 for more information.
✔	Import a site map or graphic image, which becomes the background layer in the Graphic Editor. • Refer to *Importing AutoCAD Drawings* on page 312 for instructions to import existing drawings with DXF extensions. • You can also use the drawing tools to create a graphic display. Refer to *Drawing Tools* on page 303 for more information.
✔	Place symbols representing access points, cameras, and more. Symbols can be grouped on different layers to improve visibility when viewing the completed graphic displays. Add text labels, if needed. Refer to the following sections: • *Creating a Graphic Display* on page 306, • *Associating Access Points and Other Devices* on page 307 • *Associating Camera Devices* on page 308 • *Associating Intercom Devices* on page 309 • *Configure Intrusion Areas* on page 257 • *Adding Text Labels to the Site Map* on page 311
✔	Save file and upload completed graphic display to the server. Refer to *Managing Graphic Display Files* on page 324 for more information.
✔	Link two graphic displays together using the Create Hyperlinks icon. Refer to *Linking Graphic Displays* on page 316 for more information.
✔	Build hierarchal graphic displays using the Create Hyperlink Area icon. Refer to *Building Hierarchical Displays* on page 318.

Using the Graphics Editor

The Graphics Editor allows you to associate symbol schemes to site maps. The symbol scheme identifies icons that represent doors, cameras, or other device in different alarm conditions. These icons are associated with an event type and when an alarm is generated, the appropriate icon displays on the site map.

For example, a scheme with icons representing doors in an alarm state may include a:

- gray door to represent the initial state
- red door to represent a set condition
- green door to represent a reset condition

When an alarm is generated at the specific door access point, the appropriate icon for the state condition displays on the map. Refer to *Creating a Symbol Scheme* on page 287 for more information.

If you create site maps and link them in a hierarchal arrangement, the associated icons on each level also displays the icon in its alarm state condition. Refer to *Building Hierarchical Displays* on page 318.

There are three ways to create a site map, which are:

- Create map with the drawing tools provided by the Graphics Editor.
  - Using the drawing tools, such as circles, lines, polylines, rectangles, and text entries, you can create a site map, or a graphical representation of your facilities. Refer to *Drawing Tools* on page 303 for more information.
- Use an existing JPG or GIF graphics file.
  - Most professional drawing applications usually have the capability to save a drawing in a JPG or GIF format. Refer to *Create New Image Entry* on page 300 for more information.
- Import DXF drawings created with AutoCAD®.
  - Site maps and drawings with a DXF extension can be imported if they are saved in a DXF R12 format using AutoCAD. Refer to *Importing AutoCAD Drawings* on page 312 for instructions.

To achieve the best results in your site map, draw the map as close to the size of the window in which it will be displayed. If you are importing a JPG or GIF graphic image file, try to size the image to fit the window in which it will be displayed. Whenever possible, be consistent and keep all of your displays the same size.

➤ **To open the Graphics Editor, follow these steps:**

1. From the Facility Commander Launcher window, select **Launch** and **Graphics Editor**, or select the **Graphics Editor** icon from the Editors toolbar.
2. The Graphics Editor shown in Figure 177 on page 300 window displays.

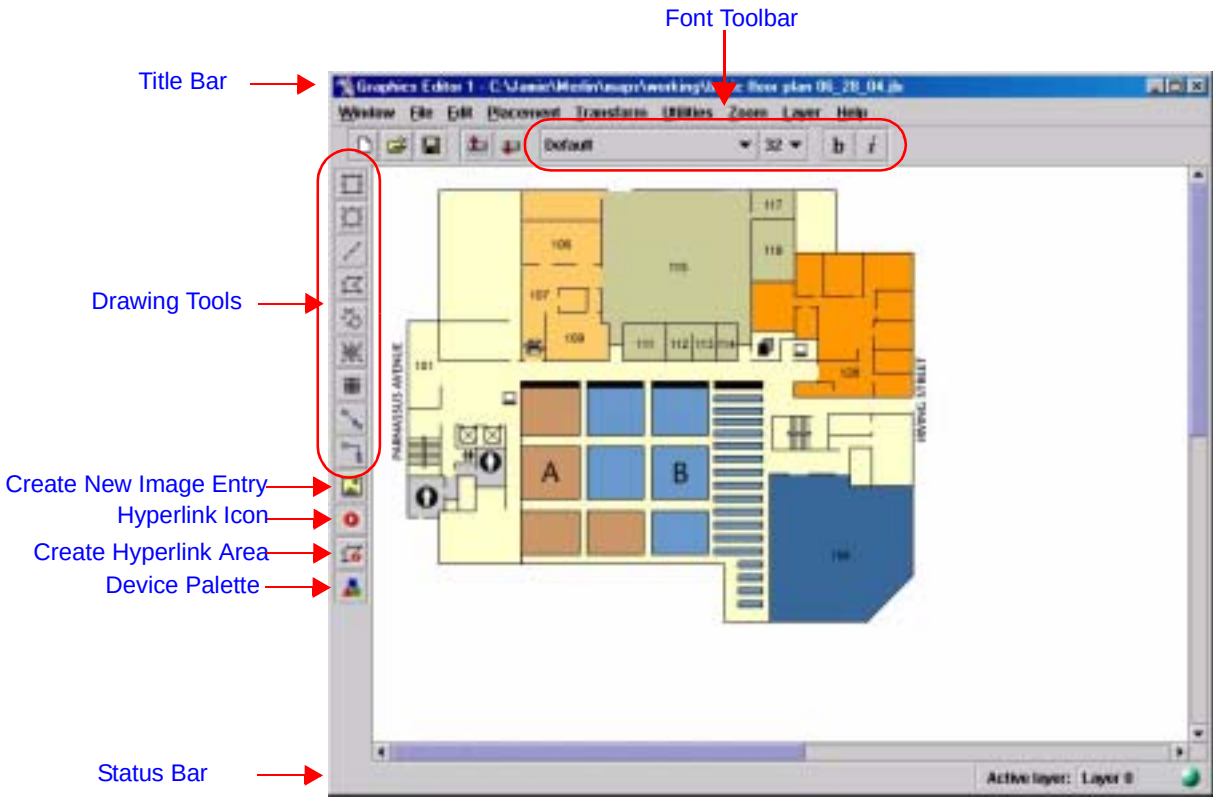


Figure 177. Graphics Editor window

Table 58 lists and describes the Graphics Editor icons and tooltips.

Table 58. Graphics Editor icons, tooltips, and descriptions

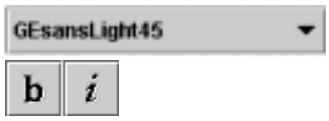
Element	Description
Title Bar	Displays the program name and window instance number. Refer to *Client Application Title Bars* on page 28 for more information.
Font Toolbar 	Use the drop-down lists to select a font type and font size. The available fonts are determined by the workstation where the Graphics Editor is being used to create drawings. If fonts used in the drawing are unavailable on the workstation where the drawing is displayed, substitute fonts are used. Select the icons to make the font **bold** or *italic*.
Drawing Tools	Refer to *Drawing Tools* on page 303 for instructions on how to use these drawing tools.
Create New Image Entry	Click the **Create New Image Entry** icon to display the Open window, which allows you to select a GIF or JPG file to use as the site map.

Table 58. Graphics Editor icons, tooltips, and descriptions (Continued)

Element	Description
Hyperlink Icon	Use the Hyperlink icon to link two or more site maps together. A graphic image or icon displays on the site map when it is viewed with the Graphics Viewer. Click the graphic image or icon on the default site map and the associated site map displays. You can choose to have the associated site map display in the current Graphics Viewer window or to launch a new Graphics Viewer window. Refer to *Linking Graphic Displays* on page 316 for instructions on how to link site maps together.
Create Hyperlink Area	Use the **Create Hyperlink Area** icon to draw a border around an irregular shape, creating a custom hyperlink path or border on a site map. • Click the **Create Hyperlink Area** icon and move the mouse cursor to the drawing area. • Click and drag the mouse to draw a line. • Click again to create an anchor point and continue until the border (or path) is complete. • Right-click to release the drawing tool. The shape automatically fills with the defined graphic attributes. Refer to *Building Hierarchical Displays* on page 318 for additional instructions.
Device Palette	Use to display the Device Palette window. The Device Palette window displays the initial state icons for each scheme created using the Symbol Editor. Tabs used to group the devices include: • Cameras • Door Access Points • Digital Inputs • Logical Inputs • Digital Outputs • Intercom Devices • Intrusion Devices Use the tooltips to identify the scheme name.

Table 58. Graphics Editor icons, tooltips, and descriptions (Continued)

Element	Description
Status Bar 	Displays the layer number or name currently active (or visible). • To change layers, select **Layer Settings** from the **Layer** menu. Refer to *Working with Layers* on page 321. Displays an icon indicating if the system with the Graphics Editor is connected to the Facility Commander server. • Green indicates the Graphics Editor is communicating with the server. • Red indicates the Graphics Editor is no longer communicating with the server.

Drawing Tools

The Graphics Editor provides drawing tools to create site maps or other graphic displays.

➤ **To use the drawing tools, follow these steps:**

1. Select the appropriate icon. You must select a tool each time before moving to the drawing area.
2. Position the mouse where you want to begin drawing. Follow the instructions listed in Table 59 to use the tools.

Table 59 lists and describes the Graphics Editor drawing tools.

Table 59. Drawing tools description

Tool	Description
Rectangle	Use to draw a rectangle or a square. • To create a rectangle, use the mouse to click and drag to reach the correct size. • To create a square, click and hold the **Shift** key while dragging the mouse.
Circle	Use to draw a circle or an ellipse. • To draw a circle, click and hold the **Shift** key while dragging the mouse. • To draw an ellipse, click and drag the mouse to reach the correct size.
Line	Use to draw a horizontal, vertical, or diagonal line. • Click to begin the line and drag the mouse to the correct location to end the line.
Polyline	Use to create a free-form shape. • Click in the drawing area and begin to move mouse to create the shape. • When one side is complete, left-click to change direction. • When finished, right-click to complete the shape.
New Path	Use to create a set of straight, cubic, or quadratic segments. The Path Tools window displays with four segment types: straight line, isometric, two-dimensional, and three-dimensional. • Left-click to create each point. Right-click to complete the shape.
Text Entry	Use to add text to the drawing. • Click in the drawing area and the Text Input window displays. Enter the text you want to add to the drawing and click **OK**. • Resize the text by stretching or shrinking the text in the drawing area.

Table 59. Drawing tools description (Continued)

Tool	Description
Array	Use to draw a grid with four columns and four rows. This can be a square or rectangle shape. • Click in the drawing area where you want the grid to display and move the mouse until the grid is the size you want. • Resize by stretching or shrinking the grid in the drawing area.
Link	Use to connect objects. This option groups objects together so they can be moved together, instead of moving each object individually. • Click the icon and all the objects in the drawing area are selected. • From the **Transform** menu, select **Group**. The objects are now linked, or grouped together.
Orthogonal Link	Use to link objects together. Choose a direction, either horizontal or vertical, for the first segment; following segments will use the same direction as the first segment.

Graphic Attributes

When you use any of the drawing tools or the Create Hyperlink Area icon to create a drawing, you can change the appearance of the drawing using the Graphics Attributes window.

➤ **To use the Graphic Attributes window, follow these steps:**

1. Double-click the image to display the Graphic Attributes window as shown in Figure 178 on page 305. If you want to select more than one image, click and drag in the drawing area to include other images.
2. Select the attributes that you want to apply, such as color, pattern, line, and brightness. Refer to Table 60 for instructions.
3. Click **Apply All** to apply the selected attributes. Click **Close** when finished.

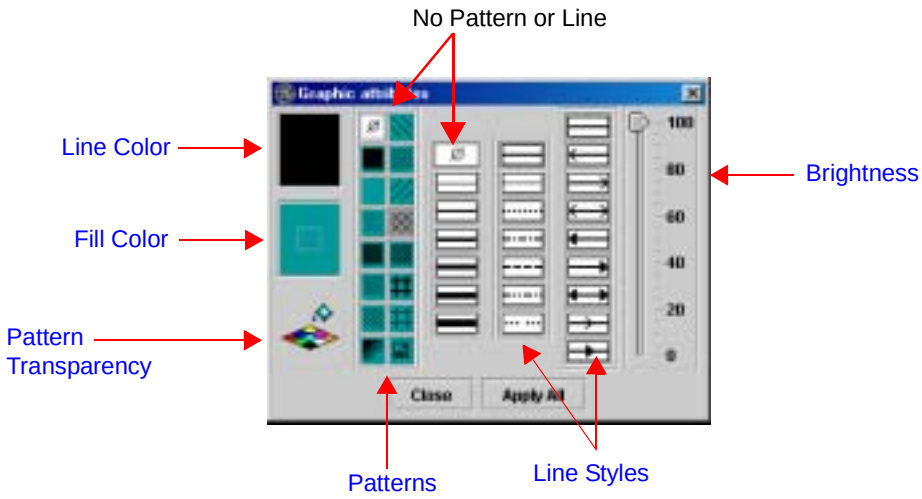


Figure 178. Graphic Attributes window

Table 60 lists and describes the elements in the Graphic Attributes window.

Table 60. Graphic Attributes elements and description

Element	Description
Line Color	Click **Line Color** to display the Edit Line Color palette. Select a line color and click **OK**.
Fill Color	Click **Fill Color** to display the Fill Line Color palette. Select a fill color and click **OK**.
Pattern Transparency	Click to display the fill color in the drawn image or a shape drawn with the Create Hyperlink Area tool. Click to remove the fill color. When you remove the fill color, only the pattern displays with a white background.
Patterns	Click to apply a pattern to the image. Use **Line Color** to select a color for the pattern.
Line Styles	Select the line type such as, solid, dotted, or arrows.
Brightness	Use the slider to indicate the brightness of the line and fill color. 100 is the brightest.

Creating a Graphic Display

A graphic display is composed of a basic site map and the symbols that represent devices or access points.

Symbol schemes must be created before this step to identify the symbols that will be used with the display. If the symbols do not display, use the Symbol Editor to upload the symbol scheme to the Facility Commander server.

➤ **To create a graphic display, follow these steps:**

1. From the Facility Commander Launcher window, select **Launch** and **Graphics Editor**, or select the **Graphics Editor** icon from the Editors toolbar. The Graphics Editor window displays.
2. Using the Graphics Editor drawing tools, create the graphic display.
   - If you have an existing site map in a JPG or GIF format, use the **Create New Image Entry** icon to import the map file. Refer to Create New Image Entry in Table 58 for more information on how to do this.
   - If you have an existing site map in a DXF format, refer to *Importing AutoCAD Drawings* on page 312 for more information.
3. Select the **Device Palette** icon to display the Device Palettes window as shown in Figure 179.

Click icon to see demo.

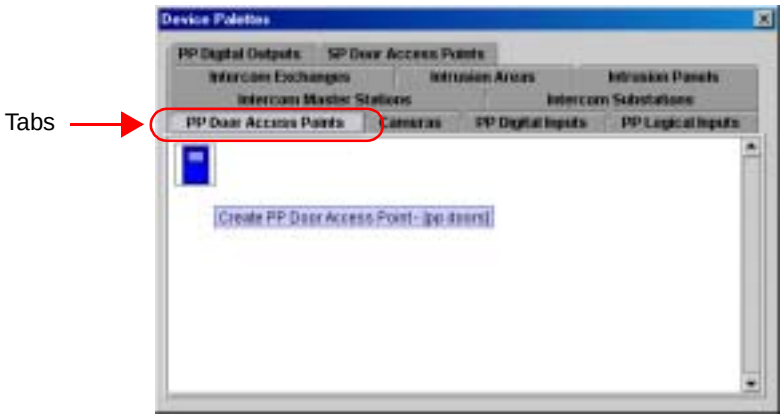


Figure 179. Device Palette window

4. Select the appropriate tab to display the symbols. Select the appropriate symbol; using tooltips to display the scheme name. After the symbol is selected, it displays in the upper-left hand corner of the drawing area.

5. Drag the image to the appropriate location on the site map.
   - If the image represents an access point, refer to *Associating Access Points and Other Devices* on page 307.
   - If the image represents a camera, refer to *Associating Camera Devices* on page 308.
   - If the image represents an intrusion area, refer to *Viewing Intrusion Areas* on page 257.

Associating Access Points and Other Devices

Click icon to see demo.

Use this option to associate a symbol icon to a specific access point, digital input, logical input, digital output, intercom, or intrusion devices.

➤ **To associate a symbol icon to a specific point, follow these steps:**

1. Right-click on the icon to display the **Set Association** button as shown in Figure 180.

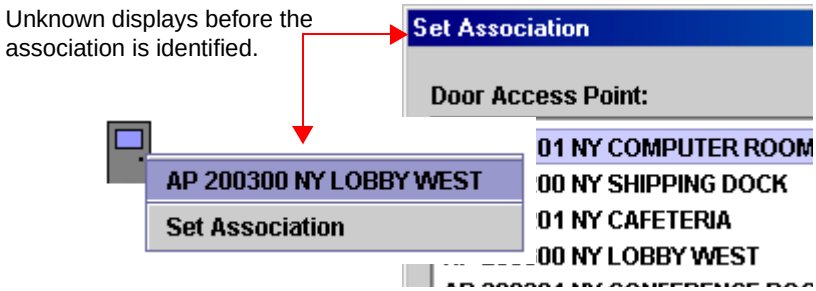


Figure 180. Set Association button

2. Click **Set Association** to display the window shown in Figure 181.

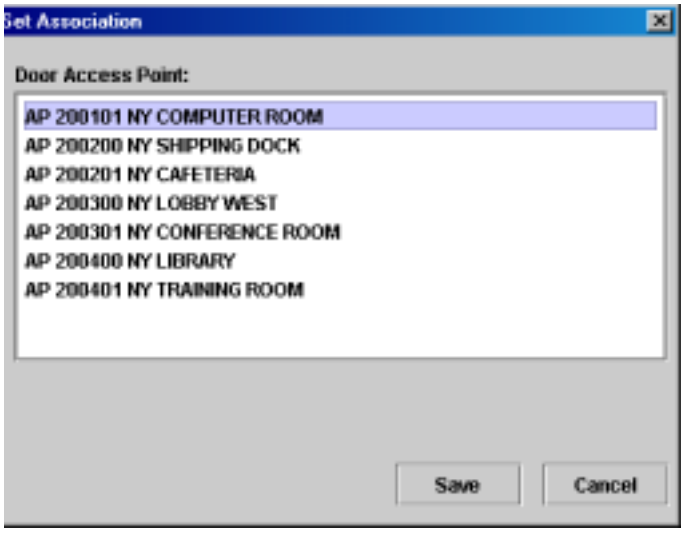


Figure 181. Set Association window

3. Use the list to select the access point that you want to associate with this symbol. Click **Save**.

Continue to the next section if you are also defining cameras. If not, continue to *Adding Text Labels to the Site Map* on page 311.

Associating Camera Devices

Use this option to associate a symbol icon to specific cameras.

➤ **To associate a camera symbol to a specific camera, follow these steps:**

1. Right-click on the icon to display the **Set Association** button as shown in Figure 180 on page 307.

2. Click **Set Association** to display the window shown in Figure 182.

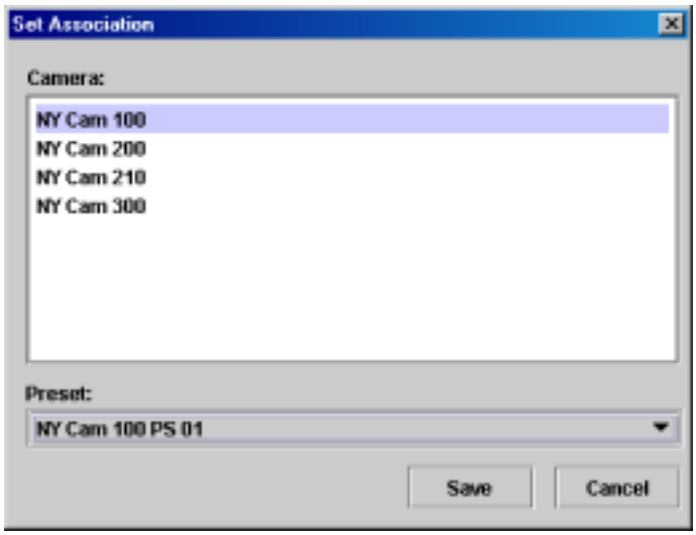


Figure 182. Set Association window

3. Select the camera from the list that you want to associate to this symbol. If the camera has preset positions, select the preset position from the **Preset** drop-down list.
4. Click **Save**.

Continue to *Adding Text Labels to the Site Map* on page 311.

Associating Intercom Devices

Use this option to associate a symbol icon to specific intercom device.

➤ **To associate an intercom symbol to a specific intercom device, follow these steps:**

1. Right-click on the icon to display the **Set Association** button as shown in Figure 180 on page 307.

2. Click **Set Association** to display the window shown in Figure 183.

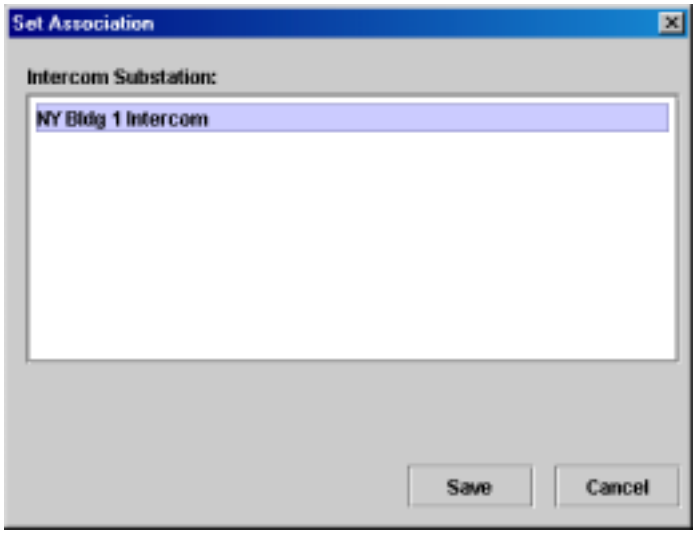


Figure 183. Set Association window

3. Select the intercom device from the list that you want to associate to this symbol.
4. Click **Save**.

Creating Intrusion Areas

A symbol scheme must be created before this step to identify the “fill pattern” to use with the display. A fill pattern may be a solid color, cross--hatch design, gradient fill, and more.

A symbol scheme usually identifies a symbol or icon to place on the graphic display representing a door access point or another device. However when you create an intrusion area, a pattern is used to identify the intrusion area state, such as Armed All Clear, Disarmed, and more.

➤ **To define an intrusion area, follow these steps:**

1. Select the **Device Palette** icon to display the Device Palette window as shown in Figure 184.

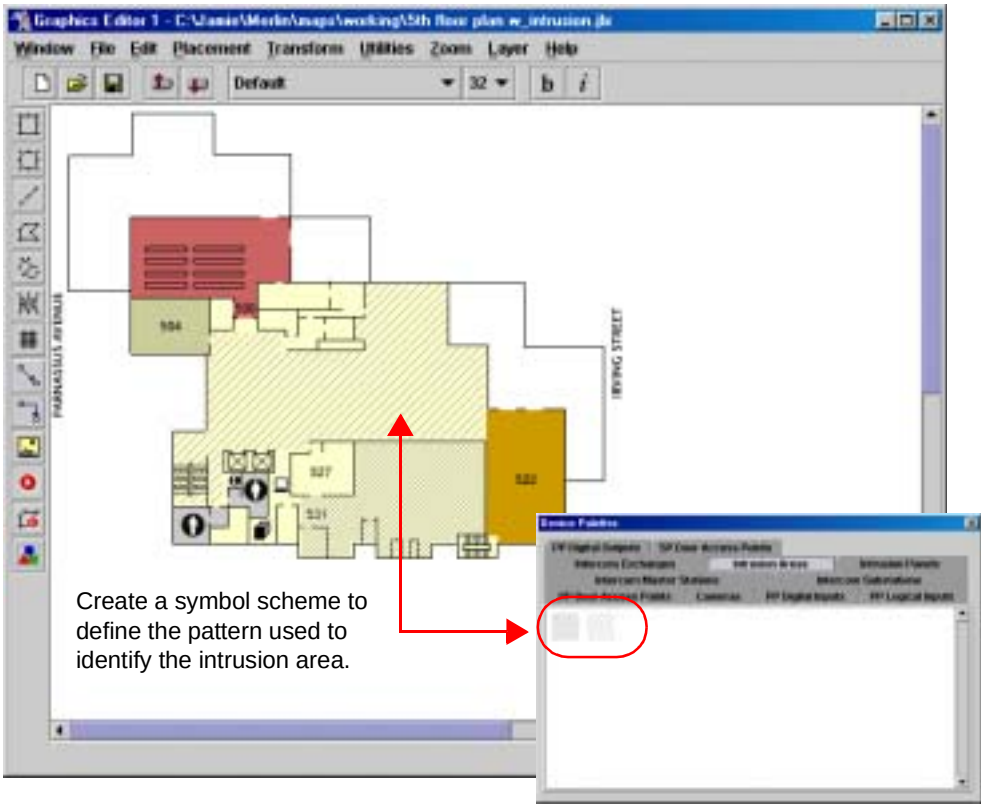


Figure 184. Graphic Editor with defined intrusion area

2. Select the **Intrusion Area** tab to display the defined intrusion area symbols (or patterns). Select the appropriate symbol; using tooltips to display the scheme name.
3. Move the mouse cursor to the drawing area (the cursor changes to a crosshair shape). Click in the drawing area to create the first point on the site plan.
   - Trace the area using horizontal, vertical, or diagonal lines created by clicking to create an anchor point and moving the cursor to the next anchor point.

- Use the **Zoom** menu to increase the size of the display and make it easier to trace the border.
- Right-click to end the path when you are finished and apply the scheme.

Adding Text Labels to the Site Map

Click icon to see demo.

This feature allows you to add a text label to identify the building name, identify a link to another site map, or identify a particular symbol icon on the site map.

➤ **To add a text label follow these steps:**

1. Select the **Text Tool** icon on the Graphics Editor toolbar.

Figure 185. Adding text to drawing in Graphics Editor window

2. Click in the drawing area where you want to place the text label. The mouse pointer changes to a crosshair shape and the **Text Input** window as shown in Figure 185 displays.
3. Enter the text to use a the label or description of the symbol. Click **OK**.
4. The text displays on the drawing area with an active border surrounding the text. Select the text and move it to the correct position. Use the **Font** toolbar to change the text attributes.
   - Use the **Font** drop-down list to select the font.
   - Use the **Size** drop-down list to select the font size.
   - Click the **Bold** icon to change the font to bold.
   - Click the **Italic** icon to change the font to italics.

Continue to the next section to save the site map.

Saving the Site Map

➤ **To save the file, follow these steps:**

1. From the **File** menu and select **Save**. The Save window displays.
2. Enter the file name. Click **Save**. The file is automatically saved with a JLX extension. When an alarm event is generated, the icon associated with the alarm state displays on the map.

Importing AutoCAD Drawings

Facility Commander allows you to import site maps, or drawings, created with AutoCAD. Only two-dimensional drawings are supported; model information in drawings is not used.

When you import an AutoCAD drawing, it must be saved in a DXF R12 format, you can select which layers you want to import. If you want the site map or drawing to remain as one object, no further steps are required.

However, if you want to maintain the layers, use the Edit Objects feature after the drawing is imported. These layers can be deleted later if not used. Imported layer names cannot be changed. Refer to *Maintain Layers in AutoCAD Drawings* on page 315 for more information.

➤ **To import an AutoCAD drawing, follow these steps:**

1. From the **File** menu, select **Import AutoCAD Drawings**. The window in Figure 186 displays.

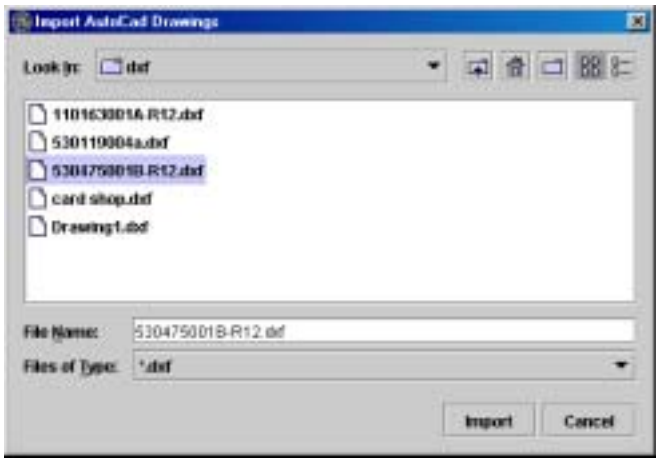


Figure 186. Import AutoCAD Drawings window

2. Select the drawing name you want to import. The name displays in the **File Name** field. Click **Import**. The Drawing Limits window shown in Figure 187 on page 313 displays.

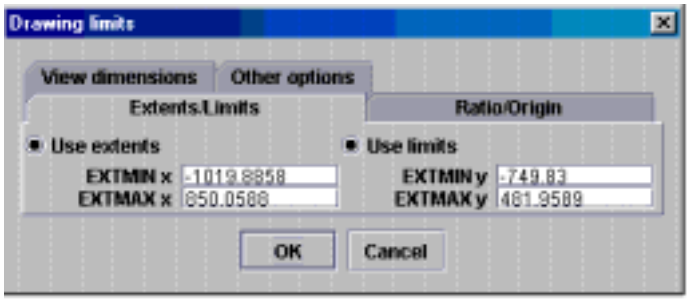


Figure 187. Drawing limits window

- Use the **Extents/Limit** tab to change the original coordinate system, which is taken from the imported DXF file.
- Use the **Ratio/Origin** tab to indicate if the aspect ratio of the original drawing should be maintained.
- Use the **View Dimensions** tab to convert the DXF file coordinates to coordinates used by the Graphic Editor.
- Use the **Other Options** tab to select the **Invert black and white** check box. Select this check box to change the color attributes. If the text map is not visible, such as a drawing with white ruling lines, select the check box to invert the black and white attributes of the drawing.

3. Click **OK**. The **Select Layers to Import** window shown in Figure 188 on page 314. displays.

Clear the check box if you do not want to import the layer.

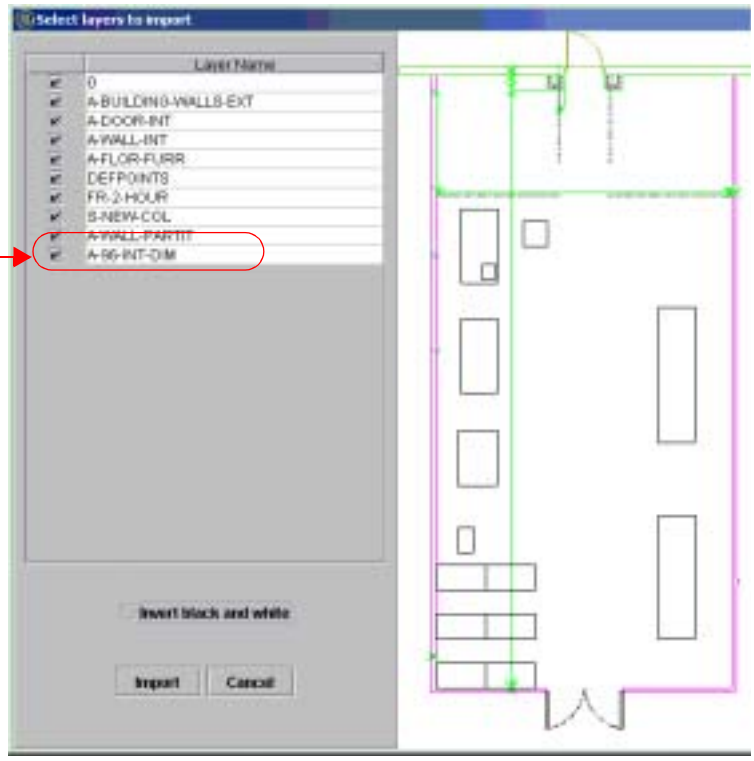


Figure 188. Select Layers to Import window

4. The Select Layers to Import window lists each of the multiple layers in the drawings. To import all the layers, click **Import**.
   - To import some of the layers, clear the check boxes of the layers you do not want to import. Only layers with check marks are imported. The display area reflects the changes in layers as you select or clear the check boxes.
5. When the imported drawing is displayed, you can re-import the drawing immediately if necessary. Right-click on a path in the drawing or a border. The shortcut menu in Figure 189 on page 315 displays. (*This menu is not accessible again after you select the Edit option.*)
6. Select **Re-Do** and the Open window in Figure 186 on page 312 displays. The imported drawing's name is highlighted. You can either re-import the same drawing or select a different one.
7. Click **Open** to re-import the drawing and the Select Layers to Import window shown in Figure 188 displays. Click **Open** to re-import the drawing.

Maintain Layers in AutoCAD Drawings

Use the Edit Object feature to maintain the layers in the AutoCAD drawings, otherwise the drawing is treated as one object.

➤ **To maintain the layers in the AutoCAD drawings, follow these steps:**

1. Right-click on a border or path in the drawing. The shortcut menu in Figure 189 on page 315 displays. (*This menu is not accessible again after you select the Edit option.*)

Figure 189. Import DXF menu options

2. Select **Edit Objects**. If you do not select this option, the drawing remains as a single object on one layer. When this option is selected, Facility Commander identifies each layer of the imported drawing.
3. From the **Layer** menu, select **Layer Settings**. The window in Figure 190 displays.

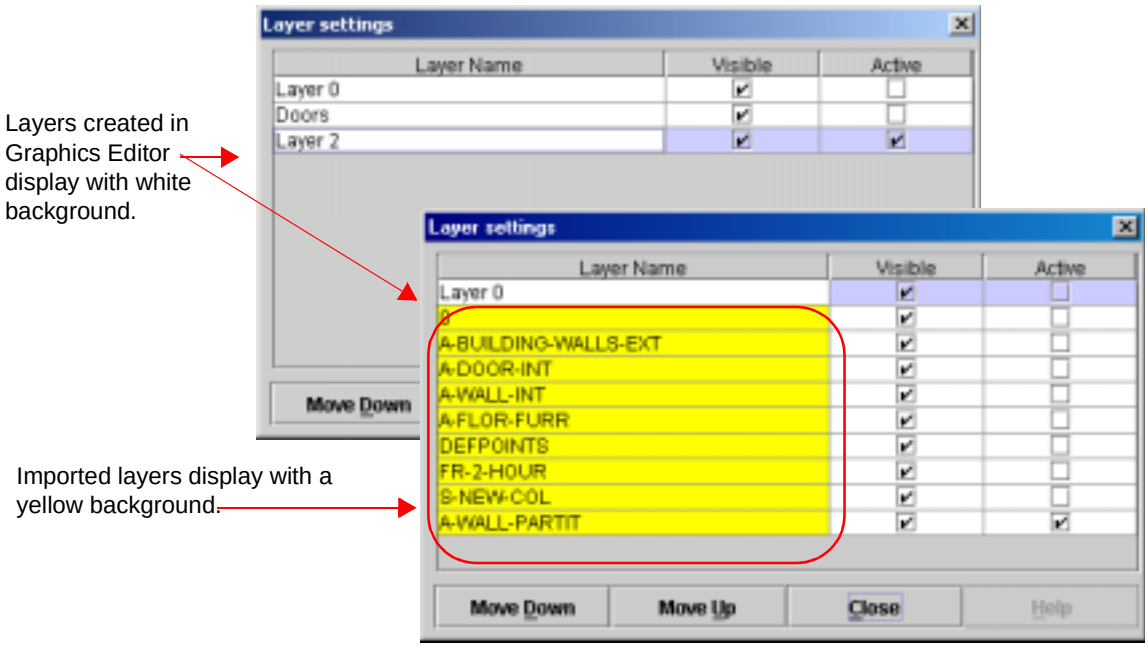


Figure 190. Layer Settings with imported and non-imported layers

4. To display a layer, select the appropriate **Visible** check box and the Graphics Editor displays the selected layer.
5. To modify a layer, select the appropriate **Active** check box and the Graphics Editor displays the active layer. The remaining layers are visible while you make changes to the selected layer.
   - To view all the items on the active layer, select the **Edit** menu and then **Select All**. All the items on this layer are highlighted.

Linking Graphic Displays

Using the **Create Hyperlink** icon in the Graphics Editor application, you can link two displays together. (You can replace the hyperlink icon with another icon or graphical image.)

When an alarm event is generated, the Graphics Viewer opens and displays the specified graphic display. To link another site map, select the hyperlink symbol and the linked graphic display appears in the same Graphics Viewer window or a new window. Refer to the illustration shown in Figure 191.

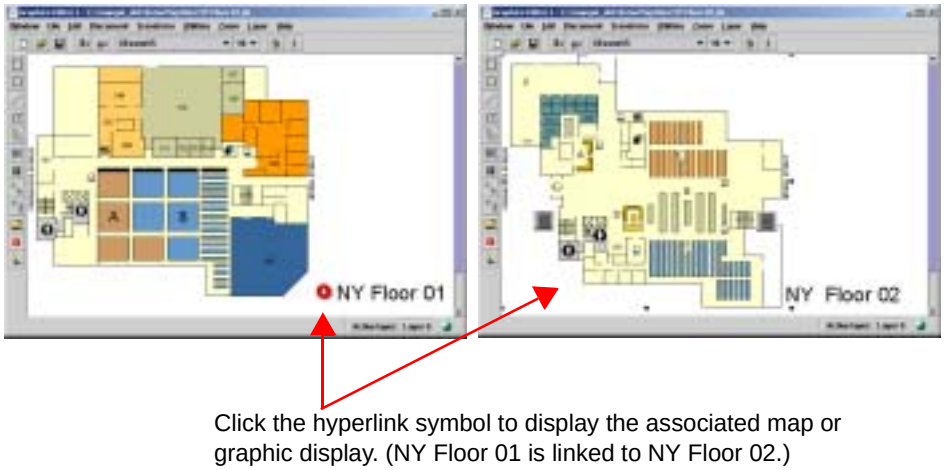


Figure 191. Hyperlink icon and associated graphic display

➤ **To link graphic displays to each other, follow these steps:**

1. From the **Facility Commander Launcher** window, select **Launch** and **Graphics Editor**. The Graphics Editor shown in Figure 177 on page 300 displays.
2. Click **File** and then **Open**.
3. Select the map file you want to use. The file will have a JLX extension.
4. Click the **Create Hyperlink** icon on the toolbar as shown in Figure 192. The icon displays in the upper-left hand corner of the drawing area.
5. Drag the icon to the appropriate location on the site map.
6. Right-click the **Create Hyperlink** icon to display the **Change Linking Properties** button as shown in Figure 192.

Figure 192. Change Linking Properties button

7. Click **Change Linking Properties** to display the Hyperlink Settings window in Figure 193 on page 317.

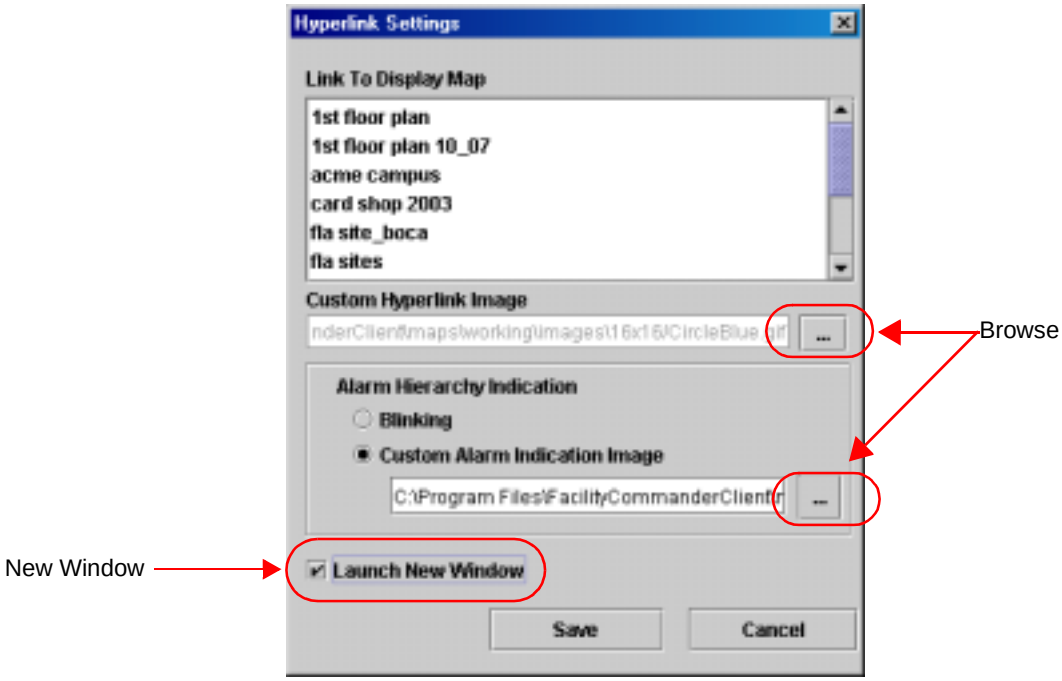


Figure 193. Hyperlink Settings window

8. Use the **Link to Display Map** list to select the site map you want to display when the hyperlink icon is selected on the Graphics Viewer.
9. To use a custom graphic image instead of the red hyperlink icon, use the **Browse** button to locate the graphic image. The path name displays in the **Custom Hyperlink Image** field. This icon displays on the site map representing a link to an associated map.
10. Select the appropriate option to indicate how the hyperlink image changes when an alarm event is generated. The options are:
    - Select **Blinking** if you want the hyperlink image to blink when an alarm event is generated.
    - Select **Custom Alarm Indication Image** if you want to select a different hyperlink image to display when an alarm event is generated. Use the **Browse** button to navigate to the folder with the graphic image you want to display on the site map representing an alarm event.
11. Select the **Launch New Window** check box if you want the associated site map to display in a new Graphics Viewer window.
    - If you want the associated site map to display in the same Graphics Viewer window, do not select this check box.
12. Click **Save**.
13. In the Graphics Editor window, use the text tool to add a label to identify the link. *Adding Text Labels to the Site Map* on page 311.
14. Save your work and upload the new site map to the Facility Commander server for distribution.

Building Hierarchical Displays

Using the **Create Hyperlink Area** icon in the Graphics Editor application to draw a hyperlink path around an object on a site map. This feature is useful to associate multiple site maps in a heroically arrangement.

When an alarm event occurs, the designated hyperlink icon reflects the alarm state condition on each level or site map in the hierarchy as shown in Figure 188. If an alarm is generated at an access point or other device on a lower-level map, the alarm condition displays on each level of the map.

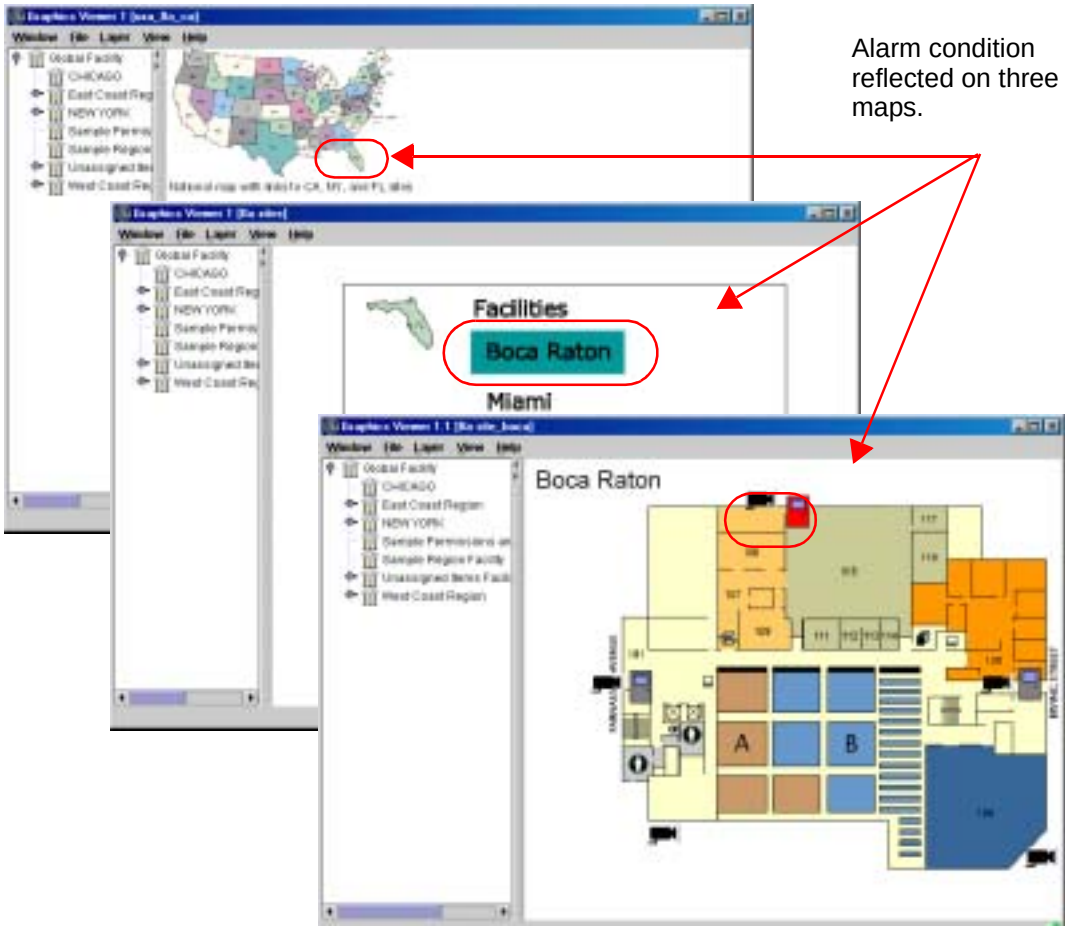


Figure 194. Hierarchal map arrangement

In this example, there are three site maps — United States, Florida, and Boca Raton.

- The United States map has three states designated as hyperlink images, including California, Florida, and New York. When an alarm is generated in Boca Raton, the outline around Florida is configured to blink. The operator clicks the icon to display the Florida map.

- Florida is represented by a list of the facilities, including Boca Raton, Miami, and others. When an alarm occurs, the facility name is configured to blink. Operators select the name to view the graphic display.
- The Boca Raton graphic display represents the actual facility with associated access points and camera devices. The door access point where the alarm occurred is configured to change to a red door icon.

➤ **To build hierarchical graphic displays, follow these steps:**

1. From the **Facility Commander Launcher** window, select **Launch** and **Graphics Editor**. The Graphics Editor shown in Figure 177 on page 300 displays.
2. From the **File** menu, select **Open**. The Open window displays.
3. Select the top-level map you want to use. The file will have a JLX extension.
4. Click the **Create Hyperlink Area** icon on the toolbar. Move the mouse cursor to the drawing area (the cursor changes to a crosshair shape). Click on the drawing area to create the first point on the site plan.
   - Trace the object using horizontal, vertical, or diagonal lines created by clicking to create an anchor point and moving the cursor to the next anchor point.
     Use the **Zoom** menu to increase the size and make it easier to trace an irregular shaped border.
   - When you are finished, right-click to end the path and apply the default graphic attributes.
   - Double-click in the area to display the Graphics Attributes window. Use to adjust border lines and change the default attributes, such as color, pattern, line, brightness. and more. Refer to *Graphic Attributes* on page 304 for instructions.
5. Right-click to display the **Change Linking Properties** button. Click again to display the Hyperlink Path Settings window as shown in Figure 195 on page 320.

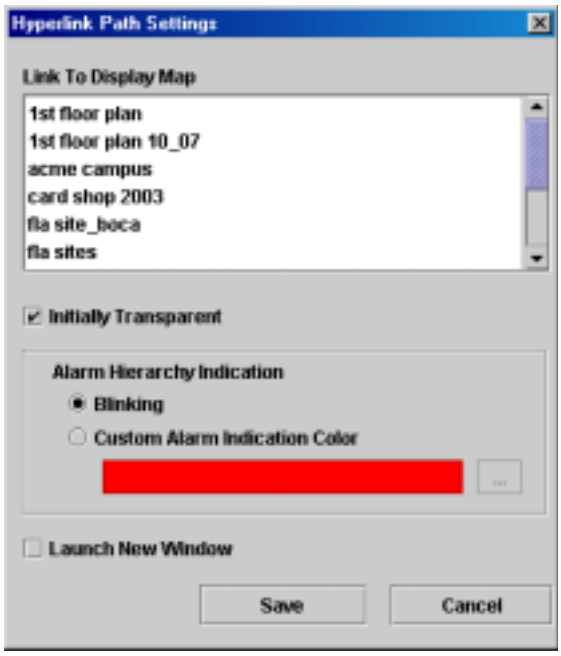


Figure 195. Hyperlink Path Settings window

6. Use the **Link to Display Map** list to select the site map you want to display when the hyperlink image is selected on the Graphics Viewer.
7. Select the **Initially Transparent** check box if you want the hyperlink border to be transparent when there is no alarm condition. Clear the check box to display the hyperlink border.
8. Select how you want the alarm indication to display. The options are:
   - **Blinking** causes the hyperlink image to blink when an alarm event occurs.
   - **Custom Alarm Indication** allows you to select a color. The hyperlink border around the image changes to this color when an alarm event occurs.
     - Click the **Browse** button to display the Choose Alarm Color window. Select a color and click **OK**.
9. Select the **Launch New Window** check box if you want the associated site map to display in a new Graphics Viewer window.
   - If you want the associated site map to display in the same Graphics Viewer window, clear this check box.
10. Click **Save**.

Working with Layers

Layers are defined as *single, transparent drawing surfaces that lay on top of one another*, much like pages in a notebook. Layers give you the ability to see each layer through the others above it, or see each layer individually. Layers allows you to move or edit objects on any layer without disturbing the objects on other layers.

A graphic display can be created with multiple layers to group access points, cameras, and inputs. When viewed using the Graphics Viewer, an operator can choose to view all the layers, or select a specific layer, such as only access doors. This improves visibility by hiding unnecessary details at a critical time.

Refer to the following topics for more information:

- *Creating a New Layer* on page 321
- *Selecting a Layer* on page 322
- *Renaming a Layer* on page 323
- *Removing a Layer* on page 323
- *Moving Objects Between Layers* on page 324

Creating a New Layer

Click icon to see demo.

When the Graphics Editor opens, the drawing area that displays represents layer zero, or the background layer. Use this layer to display the building structure or site map. Create additional layers to display different objects, such as access points, camera, or inputs. Some site maps may not require multiple layers.

➤ **To create a new layer, follow these steps:**

1. From the **Layer** menu, select **Create New Layer** and the window shown in Figure 196 displays with the layer number created when you selected this option.

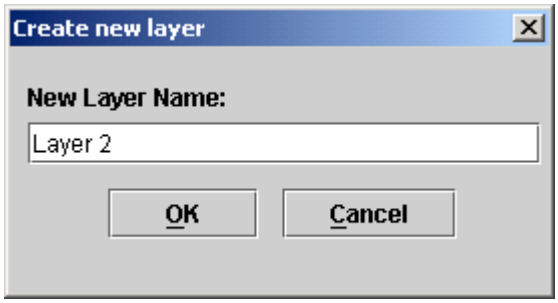


Figure 196. Create New Layer window

2. Change the layer name to something more meaningful than Layer 2, such as Access Doors. Click **OK**.

Refer to *Removing a Layer* on page 323 for instructions on how to delete layers.

Selecting a Layer

Use the layer setting feature to select one or all of the layers to display. When you are working with multiple layers, you will need to make a layer active before you can make changes to the layer. The layer setting feature also allows you to rearrange the layers by moving them up or down.

➤ **To select a layer, follow these steps:**

1. From the **Layer** menu, select **Layer Settings**. The window in Figure 197 displays.

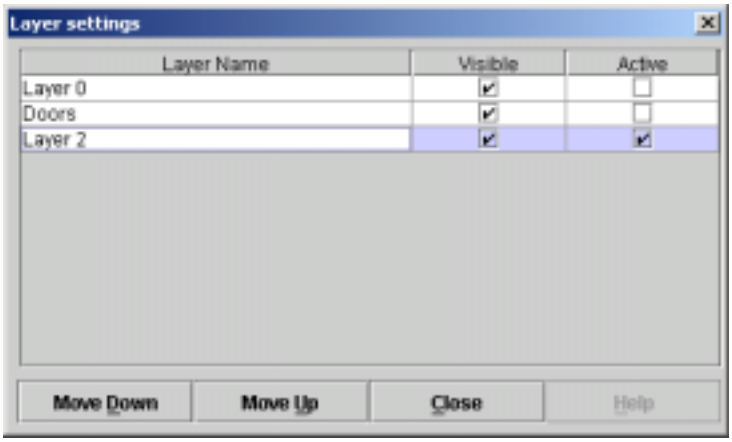


Figure 197. Layer settings window

2. To display a layer to view, select the appropriate **Visible** check boxes and the Graphics Editor displays the selected layers. To view all the layers, select all the check boxes.
3. To modify a layer, select the appropriate **Active** check box. The Graphics Editor displays the active layer. The remaining layers are visible while you make changes to the selected layer.
   - To view all the items on the active layer, select the **Edit** menu and then **Select All**. All the items on this layer are highlighted.
4. To rearrange the layers, click **Move Down** or **Move Up**.
5. Click **Close** when you are finished making changes.

Renaming a Layer

➤ **To remove a layer, follow these steps:**

1. From the **Layer** menu, select **Rename Layer** and the window in Figure 198 displays. The New Layer Name field displays the current layer name.

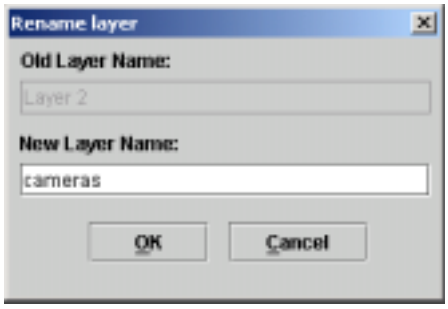


Figure 198. Rename Layer window

2. Type the new name in the **New Layer Name** field. Each layer name should be unique and no longer than 64 characters. If the name is longer, the extra characters will be truncated. The layer name is case sensitive.
   - Imported layers cannot be renamed.
3. Click **OK**.

Removing a Layer

If you create too many layers or if you do not need all the layers in the graphic display, you can remove the extra layers. The last layer cannot be removed.

➤ **To remove a layer from your display, follow these steps:**

1. From the **Layer** menu, select **Remove Layer**. The Select Layer window in Figure 199 displays with a drop-down list.

Figure 199. Select layer window

2. Use the drop-down list to select the layer you want to remove from the drawing.
3. Click **OK**.

Moving Objects Between Layers

When you are working with multiple layers, you may want to rearrange the objects by moving them to another layer. *First, select the object you want to move and then follow these instructions.*

➤ **To move an object to a different layer, follow these steps:**

1. From the **Layer** menu, select **Move Selected Objects**. The Select Layer window as shown in Figure 200 displays.

Figure 200. Select Layer window

2. Use the drop-down list to select the correct destination layer. This is the location where the object will be moved.
3. Click **OK**.

Managing Graphic Display Files

Graphic displays are stored on the local system until they are uploaded to the server system for centralized storage and backup. Once the files are uploaded they are available to use with the Graphics Viewer to view site maps and associated icons when an alarm event occurs.

When working with symbol schemes, use **Download** to make sure you are working with the most current scheme files.

Refer to the following sections for more information:

- *Uploading Graphic Displays*
- *Downloading Graphic Displays*
- *Deleting Unused Files* on page 327

Uploading Graphic Displays

Graphic displays are stored on the local system, until they are uploaded to the server system. Once they are uploaded, they are available to use with the Graphics Viewer. The Graphics Editor automatically loads the most current symbol schemes from the server every time it opens.

➤ **To upload a site map to the server, follow these steps:**

1. Display the site map you want to upload to the server. From the **File** menu, click **Open** and select the file you want to upload.

2. From the **File** menu, click **Upload**. The Upload window as shown in Figure 201 displays. The graphic display file name appears in the title bar with a JLX extension.

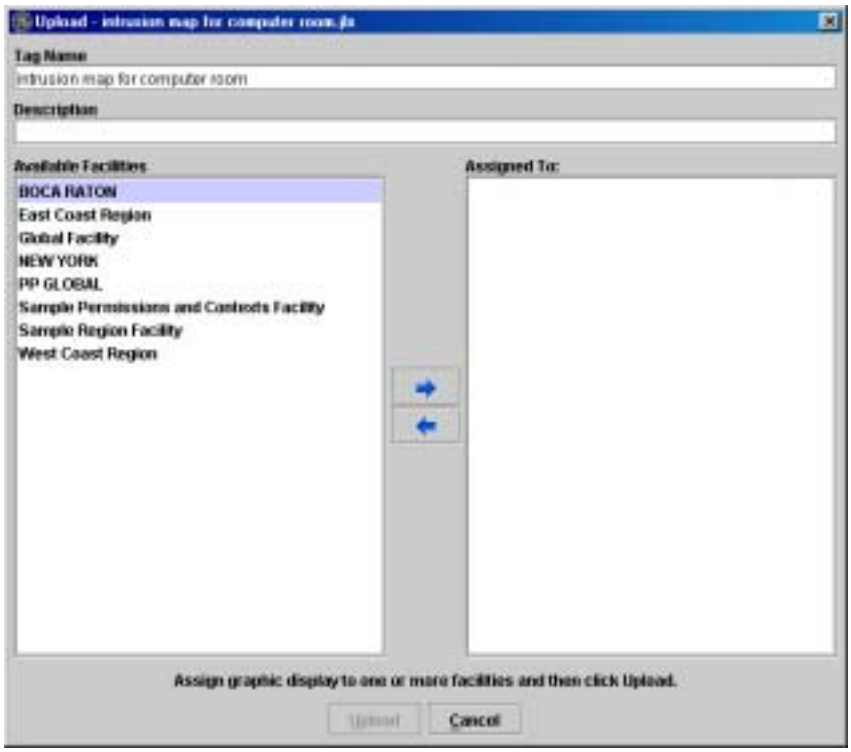


Figure 201. Upload window

3. Enter the information described in Table 61. The Upload window displays this message: **Assign graphic display to one or more facilities and then click Upload.**
4. Use the arrow keys to add or remove facilities where this graphic display is assigned. Items can belong to more than one facility. Click **Upload**.
   - If the file exists already, this message displays: **This file already exists on the server, click Upload to overwrite**.

Table 61. Upload window fields and descriptions

Field Name	REQ	Description
Tag Name		Enter a unique name to identify this item. Use 2-36 characters. This is the name that displays in the navigation pane of the client applications.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Available Facilities		Displays the list of facilities where this graphic display can be assigned. Facilities in this list depend on the operator's context and permissions.

Table 61. Upload window fields and descriptions (Continued)

Field Name	REQ	Description
Assigned To		Displays the list of facilities where this graphic display is assigned. Items can belong to more than one facility.

Downloading Graphic Displays

Graphic displays should be downloaded from the server before they are edited to ensure you have the latest file.

➤ **To download a site map to your local system, follow these steps:**

1. Display the site map you want to upload to the server. From the **File** menu, click **Open** and select the file you want to upload.
2. From the **File** menu, select **Download** or select the **Download** icon from the toolbar. The Download window shown in Figure 202 on page 326 displays.

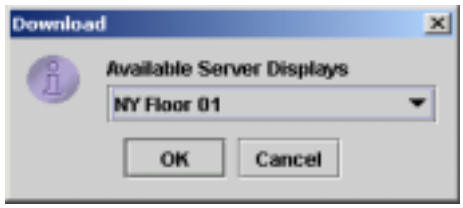


Figure 202. Download window

3. Select the site map from the drop-down list and click **OK**. The selected site map displays in the Graphics Editor drawing window.

When you are finished making changes to the site map, upload the current file to the server so that it will be available to other Facility Commander client applications.

Deleting Unused Files

The process of creating symbol schemes and graphic displays is an art, and during that process you may create some files that will not be used in your final product. The Graphics Editor provides the capability to remove unused files, which includes:

- **Displays** with JLX file extensions.
- **Images** with JPG, JPEG, or GIF file extensions.

➤ **To remove the files that are no longer needed, follow these steps:**

1. From the **File** menu, select **Deleting Graphics Files**. The Deleting Graphics Files window shown in Figure 203 displays.

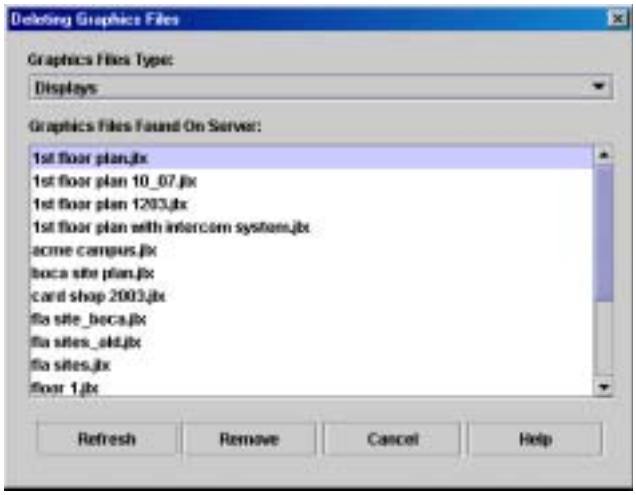


Figure 203. Deleting Graphics Files window

2. Select the Resource Type (Displays or Images) from the drop-down list. The site maps and images stored on the Facility Commander server display.
3. Highlight the entries you want to delete and click **Remove**.
   - Click **Refresh** to display an entries that may have changed on the server since this window displayed.
4. When you are finished removing the files, click **X** to close the window.

Editing Graphic Display Records

When a graphic display is created with the Graphics Viewer, it may have a file name that is not exactly what should be displayed in the navigation pane of the client applications.

Using the Configure Graphic Displays page, you can assign a tag name and description, which are more meaningful. In addition, use the Configure Graphic Displays page to change the facility membership.

Graphic displays, like other items, can be assigned to more than one facility. A facility is assigned when the graphic display is created and uploaded to the Facility Commander server. It may be necessary later to change the facility assignment by assigning additional facilities or assigning the display to a new facility.

➤ **To edit the graphic displays records, follow these steps:**

1. Select **System Administration**.
2. Select **Graphic Displays**. The Graphic Displays list page as shown in Figure 204 displays.

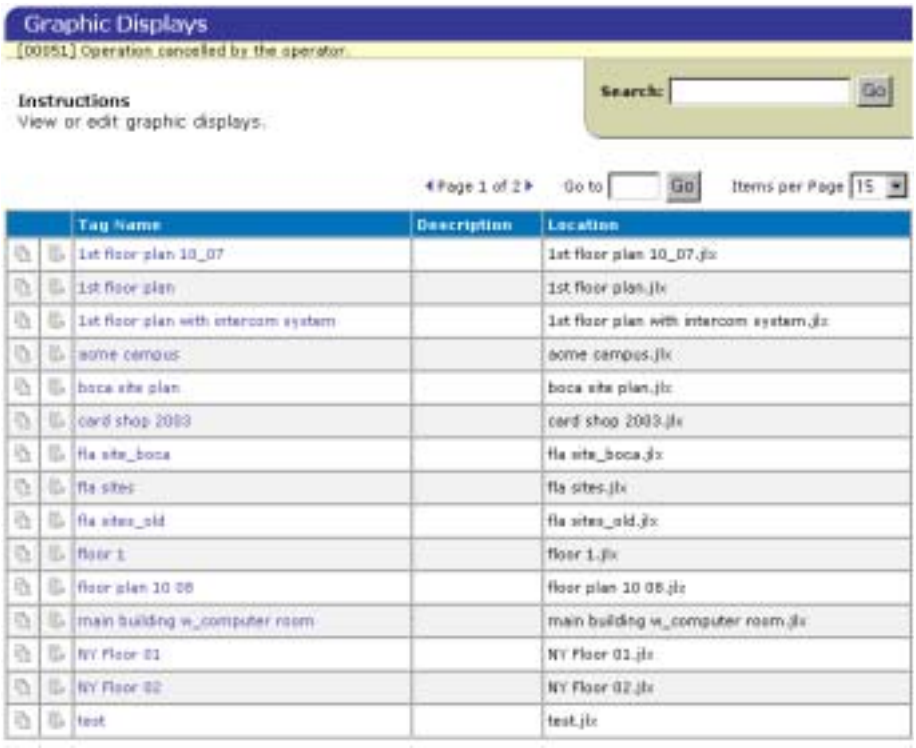


Figure 204. Graphic Displays page

3. Select the tag name to create or edit the tag name and description, or change the facilities where this graphic is assigned. The Configure Graphic Display page as shown in Figure 205 on page 329 displays.

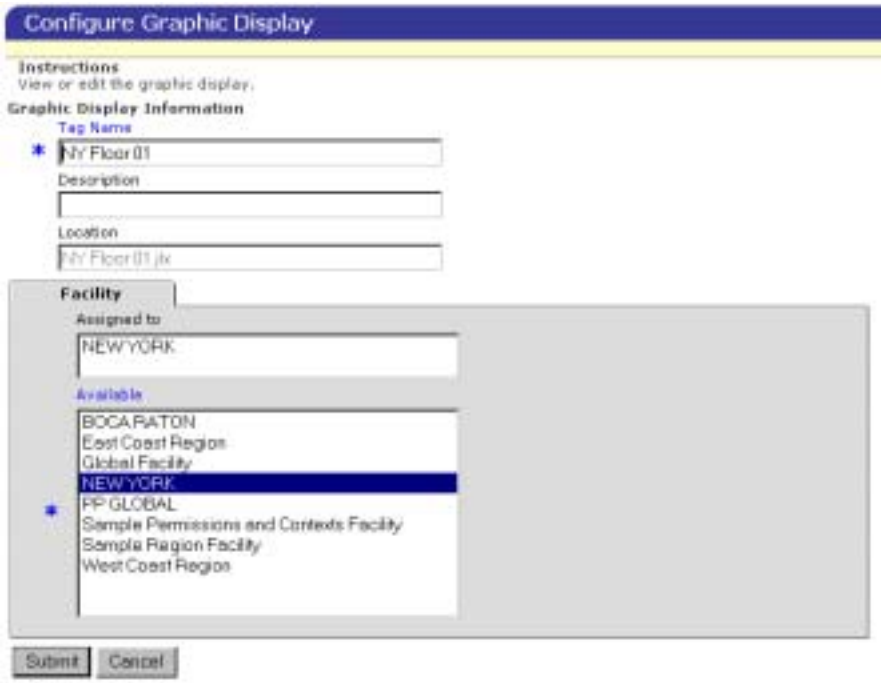


Figure 205. Configure Graphic Display page

4. Enter the information described in Table 62. A check mark indicates a required field.
5. Click **Submit** to save the record.

Table 62. Configure Graphic Display fields and descriptions

Field Name	REQ	Description
Tag Name	✔	Displays the file name assigned to the graphic display. Enter a unique name to identify this item in the navigation pane of the client applications. This changes the file name on the Facility Commander server. Use 2-36 characters.
Description		Enter a description for this item. Use 1-100 characters. The description does not have to be unique.
Location		Displays the file name with the JLX extension.

Table 62. Configure Graphic Display fields and descriptions

Field Name	REQ	Description
Facility		
Assigned To		Displays the name of facility where this graphic display is currently assigned. This is a read-only field.
Available	✔	Use to assign or change the facility membership for this graphic display. The facilities that display in this list depend on the operator's context and permissions. **Note**: When assigning this item to a facility listed in the Available list, press the **Ctrl** key before selecting the new facility assignment. • To assign the graphic display to more than one facility, select the first facility and press the **Ctrl** key while selecting the other facilities. The selected facilities are highlighted. Click **Submit**. • To assign the graphic display to all the listed facilities, select the first facility in the list, press the **Shift** key and select the last facility in the list. All the facilities are highlighted. Click **Submit**.

Chapter 16. Viewing Graphic Displays

This chapter describes the how to use the Graphics Viewer to issue commands, such as locking and unlocking doors, enabling and disabling devices, and more. Readers should be familiar with using layers in the Graphic Editor client application.

In this chapter:

Overview on page 332
Navigating the Graphics Viewer on page 334
Issuing Commands on page 338
Customizing Window Name and Contents on page 345
Printing Graphic Displays on page 346

Overview

The Graphics Viewer is a client application that allows an operator to view graphic displays and issue commands. The Graphics Viewer can be launched from the Alarm Monitor, Event Monitor, or the Facility Commander Launcher window.

When an alarm event is generated, the symbol placed on the graphic display changes to reflect the alarm state. For example, a Door Forced alarm includes two conditions — set and reset. Each alarm state and condition is represented on the graphic display by a different symbol, such as the:

- initial state is represented by a gray door icon
- alarm condition is represented by a red door icon
- reset condition is represented by a green door icon

The graphic displays contain symbols, which represent:

- Cameras
- Door Access Points
- Digital Inputs
- Logical Inputs
- Digital Outputs
- Intercom Exchanges
- Intercom Master Stations
- Intercom Substations
- Intrusion Areas
- Intrusion DGPs
- Intrusion Inputs
- Intrusion Outputs
- Intrusion Keypad
- Intrusion Panel

In addition, a globe icon displays on the Alarm Monitor and Event Monitor to represent a graphic display when an alarm event occurs. When you select the globe icon, the Graphics Viewer launches with the default graphic display, if configured to do so.

Alarm States

An alarm can be in one of three states: Alarm, Tamper, and Reset. If different icons were defined for each of these states (using the Symbol Editor), then the appearance of the symbol reflects its current state. If you have multiple maps and link them in a hierarchal arrangement, the associated icons on each level displays the icon in its alarm state condition.

Also, a device such as an access point can have multiple alarms at the same time. When this happens, there are rules for determining the current appearance of the symbol.

- The icon representing the highest priority alarm displays.
  For example, if an access point has a Door Forced Alarm with priority 10 and a Lost Badge Alarm with priority 50, the symbol's appearance will reflect the Door Forced state attribute and condition.
- If all alarms for the device have the same priority, then the symbol's appearance will reflect the most recent alarm occurrence.
  For example, a Lost Badge and Suspended Badge Alarm both have a priority of 50. The Lost Badge alarm occurred at 10:15 and the Suspended Badge alarm occurred at 10:18. The symbol's appearance will reflect the Suspended Badge state attribute and condition.

Navigating the Graphics Viewer

➤ **To display the Graphics Viewer, follow these steps:**

1. Open the **Facility Commander Launcher** window.
2. Select **Launch** and **Graphics Viewer**, or select the Graphics Viewer icon from the Viewers toolbar. The Graphics Viewer shown in Figure 205 displays.

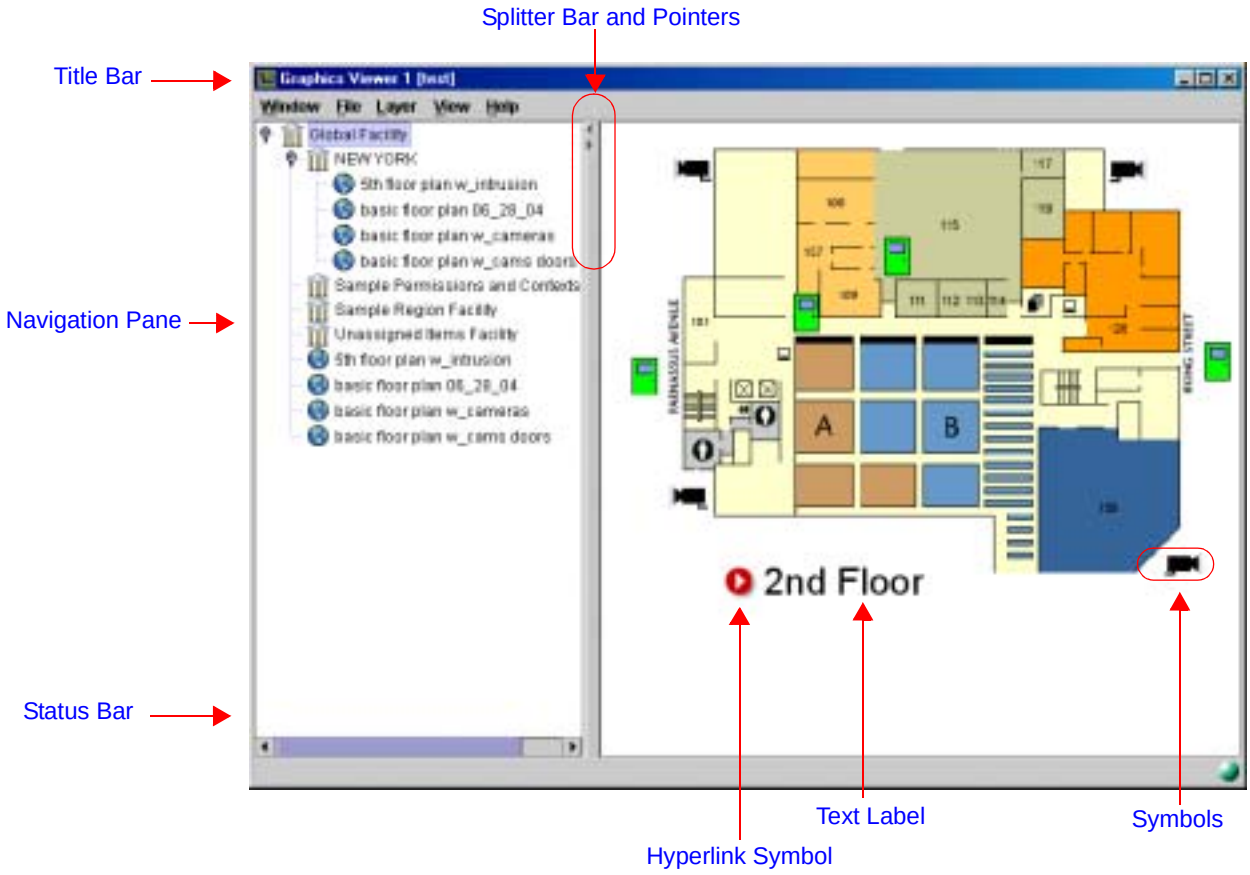


Figure 205. Graphics Viewer window

Table 60 lists and describes the elements of the Graphics Viewer.

Table 60. Graphics Viewer window

Element	Description
Title Bar	• Displays Graphics Viewer and the window instance number. Refer to *Managing Multiple Windows* on page 27 for more information. • Displays the file name and custom window title. Refer to *Customizing Window Name and Contents* on page 345 for more information.

Table 60. Graphics Viewer window (Continued)

Element	Description
Navigation Pane	Graphic displays are represented by a globe icon and are sorted in alphabetical order. Click the globe icon to change the display. The items that display in the navigation pane are determined by an operator's permission levels and context.
Splitter Bar and Pointers	The Graphics Viewer is divided by a split bar with split pointers, which can be used to change the size of the window. Panes can be resized by moving the location of the splitter bar displayed between the panes or using the split pointers. Click the split pointer to move the window left or right of its current position.
Symbols	Symbols represent devices, such as: • Cameras • Door Access Points • Digital Inputs • Logical Inputs • Digital Outputs • Intercom Devices • Intrusion Devices Refer to *Issuing Commands* on page 338 for more information.
Hyperlink Symbol	Displays the default hyperlink symbol. The hyperlink symbol can be customized and may display as a blinking icon. Click the symbol to view the associated map.
Text Label	Displays a text label, which may identify the building name, a link to another site map, or identify a symbol icon on the site map.
Status Bar	• Displays a window filter icon indicating the list of available Facility Commander facilities has changed. When the facilities have been reset, the icon no longer displays on the status bar. Refer to *Customizing Window Name and Contents* on page 345. • Displays an icon indicating if the system with the Graphics Viewer is connected to the Facility Commander server. - Green indicates the Graphics Viewer is communicating with the server. - Red indicates the system is no longer communicating with the server.

Opening Graphic Displays

There are two methods to open a file — tag name or menu option. The navigation pane displays the tag name. Select the tag name in the navigation pane to open the graphics display.

➤ **To open the Graphics Viewer using the menu, follow these steps:**

1. From the **Facility Commander Launcher** window, select **Launch** and **Graphics Viewer** or select the Graphics Viewer icon from the Editors toolbar. The Graphics Viewer shown in Figure 205 on page 334 displays.
2. Select **File** and then **Open**.
   - If a more recent copy of the site map exists on the Facility Commander server, the **Open** window shown in Figure 206 displays.

Figure 206. Download window

3. Use the drop-down list to select the graphic display you want to view. Click **OK**. The Graphics Viewer displays the selected site map.

Selecting Layers

Graphic displays can be constructed of different layers with different items on each layer. Use this option to select the layers you want to view. One layer may contain only access points, while another layer may contain all the video devices. Hiding layers reduces the clutter when operators need to focus.

➤ **To display a different layer, follow these steps:**

1. Select **Layer** and **Show/Hide Layer**. The **Show/Hide Layer** window shown in Figure 207 displays.

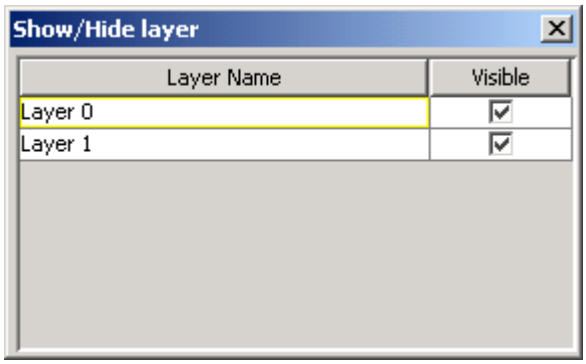


Figure 207. Show/Hide Layer window

2. The window displays the layer names (Layer 0, Layer 1, or the name assigned to the layer) with a check box to select individual layers. A check mark indicates the layer is visible.
   - Select the check box to display a layer. The **Show/Hide Layer** window remains open to allow you to move back and forth between layers.
   - Clear the check box to remove a layer from view. If you want to view only Layer 1, clear the Layer 0 check box.
3. Click **X** to exit from the **Show/Hide Layer** window.

Issuing Commands

The Graphics Viewer allows operators to respond to alarm events and issue commands. Different menus with different actions display depending on the type of device and alarm state, such as:

- *Lock and Unlock Doors*
- *View Video from a Specific Camera* on page 340
- *View Video from Monitor Devices*
- *Enable or Disable Input Devices* on page 342
- *Connect and Disconnect Intercom Devices* on page 343
- *Arm or Disarm Intrusion Areas* on page 344

An action may be dimmed if the operation is not allowed. An action may not be allowed if the operator does not have permission to perform the action or the action is not supported by the product. For example, Secure Perfect does not support the Duration Unlock feature.

Table 61 lists the devices and the available actions for each device.

Table 61. Summary of devices and actions

Device	Commands
Access Points	• Momentary Unlock • Duration Unlock • Permanent Unlock • Lock Door
Input Devices	• Enable • Disable
Intercom Devices	• Connect • Disconnect
Intrusion Area	• Arm • Disarm
Intrusion DGP	• Bypass DGP • Unbypass DGP • Start DGP Battery Test • Cancel DGP Battery Test
Intrusion Input	• Bypass Input • Unbypass Input
Intrusion Keypad	• Bypass Keypad • Unbypass Keypad

Refer to the appropriate sections for more information about using these features.

Lock and Unlock Doors

➤ **To lock or unlock an access door, follow these steps:**

1. Select the appropriate graphic display. Refer to *Opening Graphic Displays* on page 336.

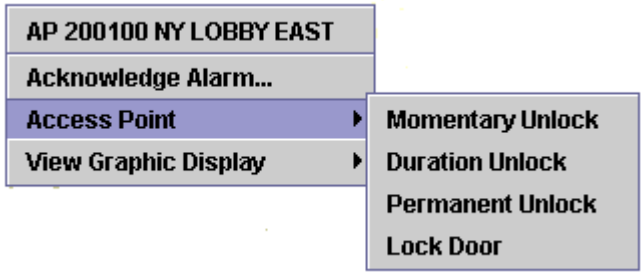


Figure 208. Site map with action menu

2. Locate the symbol representing the device. If the device is in an alarm state:
   - Double-click the symbol to launch the Alarm Response window as shown in *Responding to Alarms* on page 211.
   - Right-click the symbol to display the action menu. The window shown in Figure 208 displays with the tag name and a list of actions available to the operator.

   If the device is not in an alarm state:
   - Double-click the symbol to perform the default action, which is Momentary Unlock.
   - Right-click the symbol to display the action menu. The Control Toolbar displays when the device is not in an alarm state.

Refer to Table 62 for a description of each action.

Table 62. Lock/Unlock options

Option	Description
Momentary Unlock	Unlocks the door for a time specified in Picture Perfect.
Permanent Unlock	Unlocks the door permanently until changed by an operator.
Duration Unlock	Unlocks the door the number of seconds specified in the drop-down list. Refer to *Unlock Door for Duration* for more information.
Lock Door	Locks the door until reset by an operator using the unlock command.

Unlock Door for Duration

➤ **To unlock a door for a specified duration, follow these steps:**

3. Select **Duration Unlock**. The window shown in Figure 209 displays.

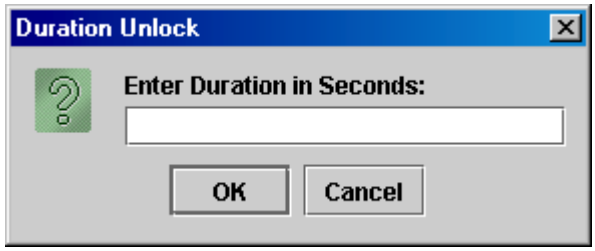


Figure 209. Lock and unlock door options

4. Enter the number of seconds in the **Enter Duration in Seconds field**.
5. Click **OK**.

View Video from a Specific Camera

➤ **To view video from a camera device, follow these steps:**

1. Select the graphic display. Refer to *Opening Graphic Displays* on page 336.

Figure 210. Graphic display with video devices

2. Locate the symbol representing the device. If the device is in an alarm state:
   - Double-click the symbol to launch the Alarm Response window as shown in *Responding to Alarms* on page 211 displays.
   - Right-click the symbol to display the action menu. The window shown in Figure 210 displays with the tag name and a list of actions available to the operator.

   If the device is not in an alarm state:
   - Double-click the symbol to perform the default action, which is View Live Video. Or, drag the camera from the navigation pane to a Video Viewer pane and live video displays.
   - Right-click the symbol to display the action menu. The Control Toolbar displays when the device is not in an alarm state.

View Video from Monitor Devices

To use this feature, analog cameras must be connected to an analog CCTV switcher. Refer to *Configuring Video Devices* on page 127 for more information.

➤ **To display video on a CCTV monitor, follow these steps:**

1. Select the graphic display. Refer to *Opening Graphic Displays* on page 336.

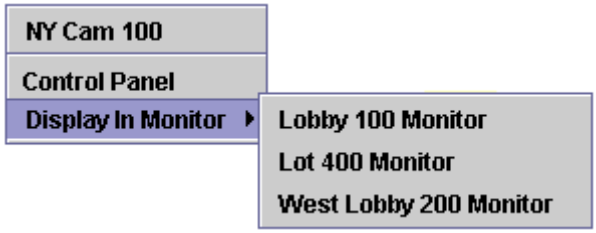


Figure 211. Graphical display with monitors

2. Locate the symbol representing the device. If the device is in an alarm state:
   - Double-click the symbol to launch the Alarm Response window as shown in *Responding to Alarms* on page 211 displays.
   - Right-click the symbol to display the action menu. The window shown in Figure 211 displays with the tag name and a list of actions available to the operator.

   If the device is not in an alarm state:
   - Right-click the symbol to display the action menu. Select **Display in Monitor** and then select the monitor device to play the video. The Control Panel displays when the device is not in an alarm state.
3. If the camera device is connected to a matrix switcher, drag the camera from the navigation pane, or the site map, to a monitor symbol on the map and live video displays.

Enable or Disable Input Devices

➤ **To enable or disable input devices, follow these steps:**

1. Select the graphic display. Refer to *Opening Graphic Displays* on page 336.
2. Locate the symbol representing the device. If the device is in an alarm state:
   - Double-click the symbol to launch the Alarm Response window as shown in *Responding to Alarms* on page 211 displays.
   - Right-click the symbol to display the action menu. The window shown in Figure 212 displays with the tag name and a list of actions available to the operator.

   If the device is not in an alarm state:
   - Right-click the symbol to display the action menu. The Control Toolbar displays when the device is not in an alarm state.

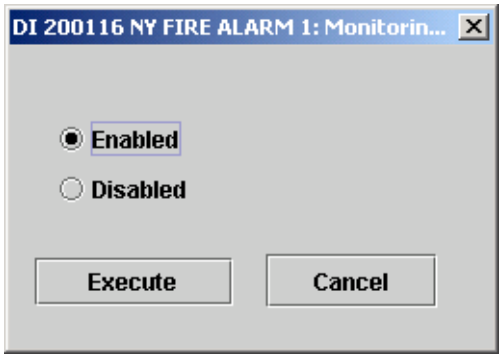


Figure 212. Monitor window

3. Select the appropriate option button and click **Execute** to perform the selected action. The actions are described in Table 63.

Table 63. Monitor window

Option	Description
Title Bar	Displays DI-prefix to identify digital input and the tag name.
Enabled	Select to enable the device.
Disabled	Select to disable the device.

Connect and Disconnect Intercom Devices

➤ **To connect an intercom device, follow these steps:**

1. Select the appropriate graphic display. Refer to *Opening Graphic Displays* on page 336.

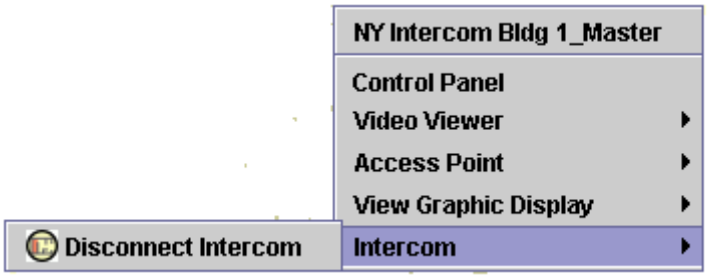


Figure 213. Graphic display with an intercom device

2. Locate the symbol representing the intercom device. If the device is in an alarm state:
   - Double-click the symbol to launch the Alarm Response window as shown in *Responding to Alarms* on page 211 displays.
   - Right-click the symbol to display the action menu. The window shown in Figure 213 displays with the tag name and a list of actions available to the operator.

   If the device is not in an alarm state:
   - Double-click the symbol to perform the default action, which is Connect.
   - Right-click the symbol to display the action menu. The Control Toolbar displays when the device is not in an alarm state.

Arm or Disarm Intrusion Areas

➤ **To arm or disarm an intrusion area, follow these steps:**

1. Select the appropriate graphic display. Refer to *Opening Graphic Displays* on page 336.

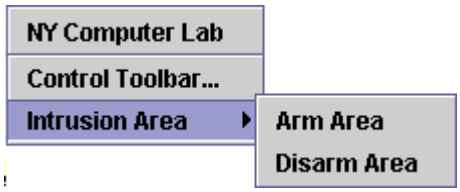


Figure 214. Graphic display with an intercom device

2. Locate the intrusion area. If the area is in an alarm state:
   - Right-click the symbol to display the action menu. The window shown in Figure 213 displays with the tag name and a list of actions available to the operator.

   If the device is not in an alarm state:
   - Double-click the symbol to perform the default action, which is Arm.
   - Right-click the symbol to display the action menu. The Control Toolbar displays when the device is not in an alarm state.

Customizing Window Name and Contents

➤ **To filter the items, follow these steps:**

1. From the **View** menu, select **Window Filter**. The Window Filter window in Figure 215 displays.

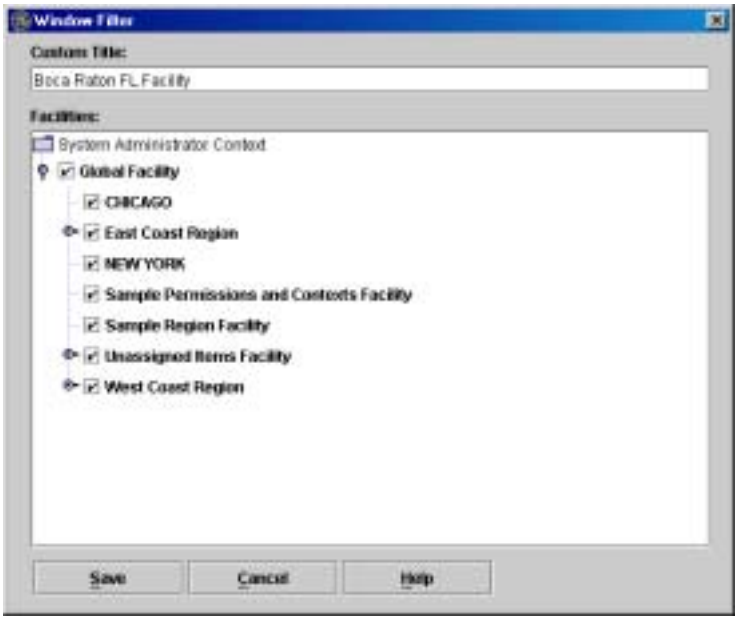


Figure 215. Window Filter

2. Use the **Custom Title** field to identify a title to display on the Graphics Viewer title bar. You can use up to 255 characters.

3. Select the check boxes to indicate the items you want to display on the Graphics Viewer. A check mark indicates the item is selected.
   - Clear the check boxes to remove the items from view.
4. Click **Save**. The Graphics Viewer displays a window filter icon in the status bar indicating the list of available Facility Commander facilities has changed.

Printing Graphic Displays

➤ **To print a display, follow these steps:**

1. From the **File** menu, select **Print**. The Print View window shown in Figure 216 displays.

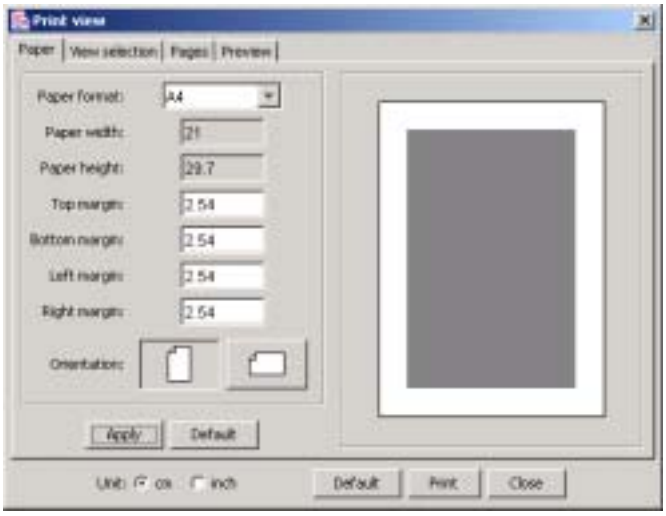


Figure 216. Print View window

2. On the **Paper** tab, use the **Paper Format** drop-down list to select the correct paper size. The measurements and margins display for the selected paper format. The default setting is A4.
   - Select the unit of measurement to display. Click the appropriate option button to select centimeters or inches.
   - Select the paper orientation. Click the portrait icon or landscape icon to change the orientation.
   - If you select a custom paper format, enter the paper width and height, and margins for the graphic display. Click **Default** to discard the changes and return to the default settings.
3. On the **View Selection** tab, you can adjust the position of the graphic display on the page. Use the **Start X** and **Start Y** to change the position of the display. Click **Apply** when you are finished making adjustments.
4. On the **Pages** tab, you can adjust the position size, resolution, and indicate the number of pages to print the site map or graphic display.
5. On the **Preview** tab, you can preview the page before printing. Make the necessary changes and click **Print**.

Chapter 17. Backup/Restore SQL Server 2000 Database

This chapter describes the backup and restore procedures for Windows files and SQL Server 2000 Database.

In this chapter:

Overview on page 348
Backing Up Windows Files on page 349
Backing Up a SQL Server 2000 Database on page 353
Restoring Files on Windows 2000 on page 357
Restoring a SQL Server 2000 Database on page 361

Overview

Backups let you copy data to a file or tape device. When you back up data to a tape, you must have a tape device connected to the computer. If a tape device is not available, you can back up the data to a file and transfer the file to a safe place for storage.

It is a good practice to back up the data stored on the Facility Commander server at regular intervals. If the original data stored on the server's hard disk becomes inaccessible because of a system malfunction, you can use the backup data to restore the lost or damaged data.

There are two backups that should be done:

- **Files**, which include selected files and folders
- **Database**, which includes all Facility Commander database records

Backups should be done on a regular schedule, such as a full backup done on a weekly basis and a daily incremental backup. Follow the schedule suggested by your company policy.

The first complete backup should be performed after installing and configuring Facility Commander. In addition, a files backup should be completed each time a database backup is completed, and when the system is upgraded.

This chapter describes how to back up selected files and folders and restore the backed up files to the original hard disk or a new hard disk. Refer to the following instructions:

- *Backing Up Windows Files* on page 349
- *Backing Up a SQL Server 2000 Database* on page 353

The next section describes how to back up and restore selected files and folders on a Windows system. The backup and restore process uses Microsoft Windows Backup for the files and Enterprise Manager for the database.

Backing Up Windows Files

This section describes how to back up selected files and folders on a Windows system. There are four basic steps to create a backup:

- Identify files and folders for backup.
- Select the storage media, such as tape or file.
- Set the backup options.
- Start the backup.

➤ **To do a files backup, follow these steps:**

1. Click **Start** on the taskbar, then select **Programs**, **Accessories**, **System Tools**, and **Backup**. The Welcome to the Windows 2000 Backup and Recovery Tools window shown in Figure 217 displays.

Figure 217. Windows 2000 Backup and Recovery Tools window

2. Select the **Backup** tab. The Backup window shown in Figure 218 on page 350 displays.

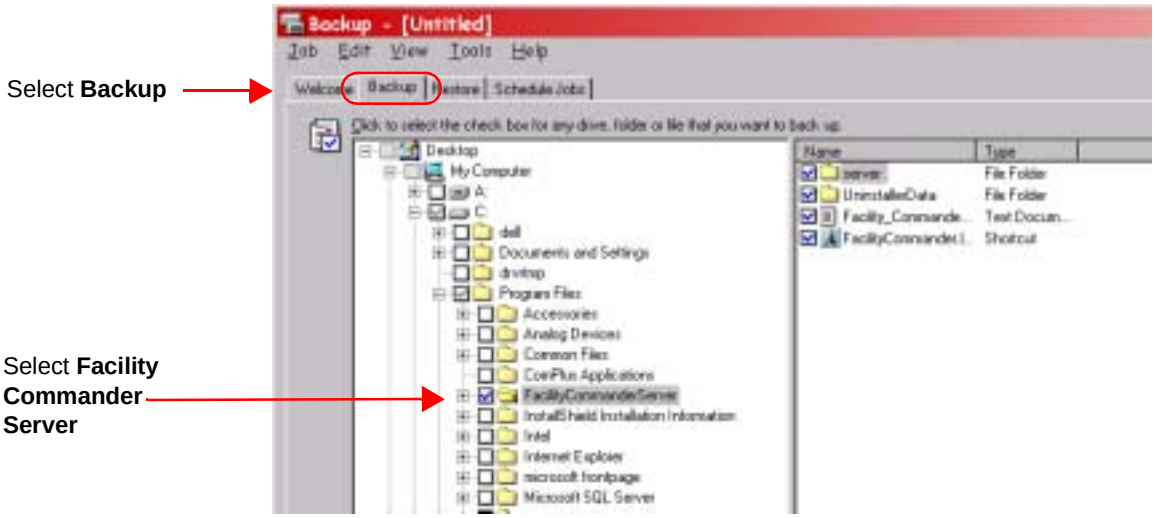


Figure 218. Backup window

3. Locate the appropriate disk drive and expand the folder to display the **Program Files** folder. If a location other than the default location was specified for Facility Commander during the installation process, navigate to the appropriate folder.
4. Select **Facility Commander Server**. A check mark displays in the check box next to each item appearing in the pathname.

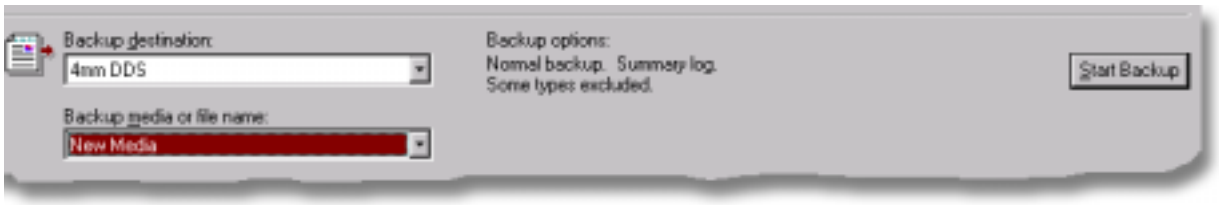


Figure 219. Backup destination

5. Use the **Backup destination** drop-down list to select the media type, such as a tape or file. This is located at the bottom of the Backup window shown in Figure 219.
   - Choose a tape device to back up the data to a tape, which is the recommended media type.
   - Choose **File** to back up the data to a file, if you do not have a tape device installed on the server system. This is the default setting. If you back up to a file, use FTP or a similar utility to send the backup file to another computer for storage.
6. Use the **Backup media or file name** drop-down list to select **New Media** or a tape with existing data.

- If you are backing up the data to a file, type the path name and file name or use the **Browse** button to assign a name to the backup file. Windows assigns a file extension of BKF. Click **Open**.

7. Click **Start Backup**. The Backup Job Information window as shown in Figure 220 displays.

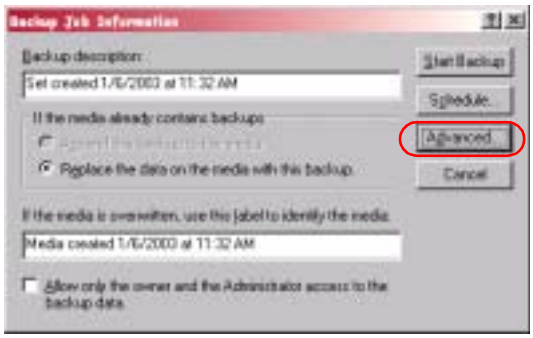


Figure 220. Backup Job Information window

8. Depending on your corporate policy, you may be required to use a blank tape or add data to an existing tape.
   - If this tape has data you want to retain, select the **Append the data to the media** option.
   - If this tape is used or new, select the **Replace the data on the media with this backup** option.

9. Click **Advanced** and the Advanced Backup Options window as shown in Figure 221 displays.
   - Select the **Verify data after backup** check box. A check mark indicates your selection. Click **Schedule** if you want future backups performed at specific dates and times. Refer to Microsoft documentation for instructions to set up schedules.

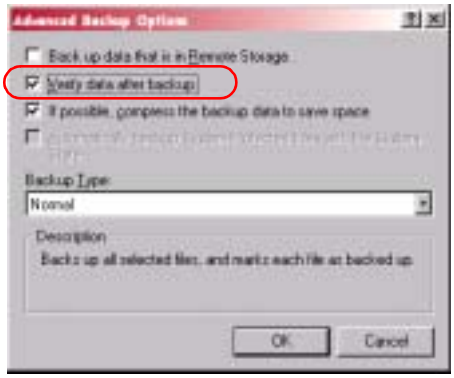


Figure 221. Advanced Backup Options window

10. Use the **Backup Type** drop-down list to select the appropriate backup type. The options are Normal, Copy, Incremental, Differential, and Daily.
    - **Normal** is suitable to perform backups on a weekly basis and includes all selected files. A normal backup with the correct differential backups should provide the data needed to restore the system.
    - **Differential** is suitable to perform backups on a daily basis and includes all selected files that have been modified since the last normal backup.

      Note: For additional information, press **F1** to access the online help system.
11. Click **OK** to return to the Backup Job Information window. Click **Start Backup**.
12. When the Backup Progress window indicates that the backup is complete, you may close the window or view the report.

Backing Up a SQL Server 2000 Database

➤ **To do a database backup, follow these steps:**

1. Select **Start**, **Programs**, **Microsoft SQL Server**, and then **Enterprise Manager**. The SQL Server Enterprise Manager window shown in Figure 222 displays.

From **Tools** menu, select **Backup Database.**

Select the SQL Server you want to back up.

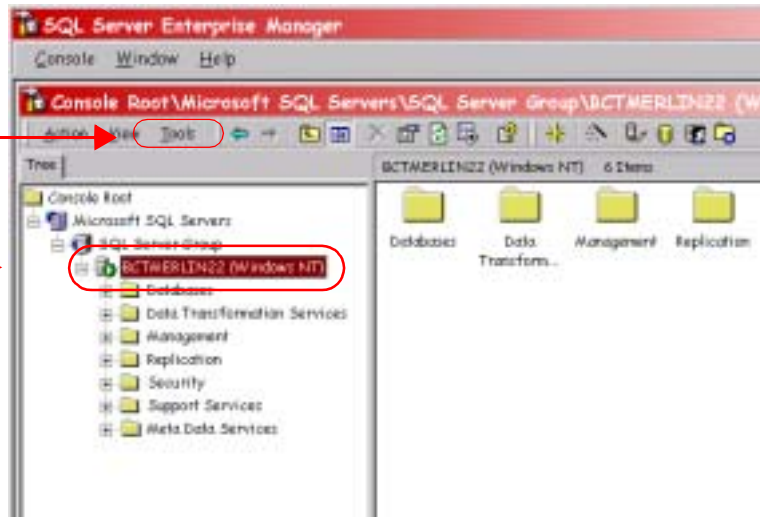


Figure 222. SQL Server Enterprise Manager window

2. Using the navigation tree, select the SQL Server to be backed up.
3. From the **Tools** menu, select **Backup** database. The SQL Server Backup window shown in Figure 223 displays.

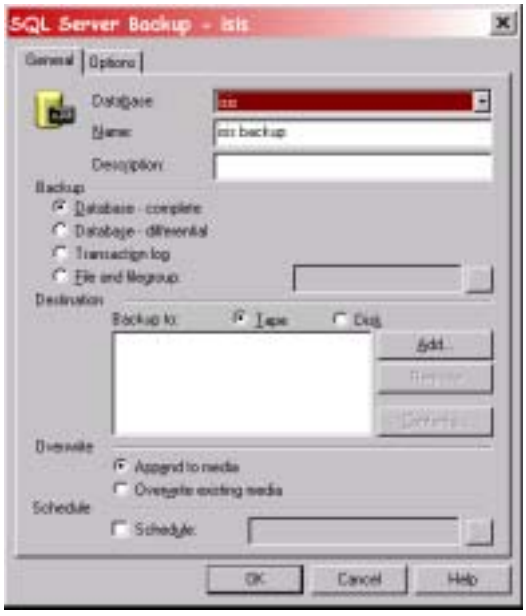


Figure 223. SQL Server Backup window

4. Use the **Database** drop-down list to select “isis”, if it does not automatically display.
5. Enter a name for this backup in the **Name** field.
6. Enter a description in the **Description** field.
7. Select one of these options: **Database - complete** or **Database - differential**. If this is the first backup, you should back up the complete database.
   - **Complete** is suitable to perform backups on a weekly basis and includes all data.
   - **Differential** is suitable to perform backups on a daily basis and includes all data that has been modified since the last complete backup.
8. Select **Tape** as the backup destination. If this is the first backup, the Backup to: window is empty.
   - If the window is empty, click **Add**. The Select Backup Destination window in Figure 224 displays.

Figure 224. Select Backup Destination window

   - The **Tape** option should already be selected. Make sure the correct tape device displays in the drop-down list. Click **OK**. The SQL Server Backup window in Figure 225 on page 355 displays.

Figure 225. SQL Server Backup window

9. Select the tape device. Choose one of the **Overwrite** options and click **OK**.
   - If this tape has data you want to retain, select the **Append to media** option.
   - If this tape has existing data and you do not want to retain the data, select the **Overwrite existing media** option.

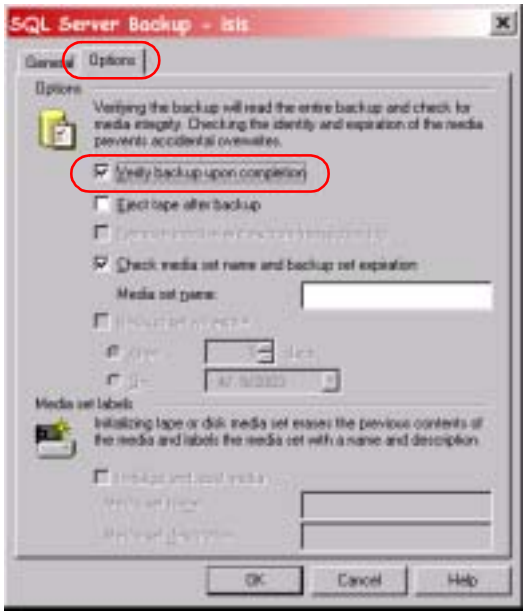


Figure 226. SQL Server Backup window

10. Select the **Options** tab.
11. Select **Verify backup upon completion**. Click **OK**.
12. The Backup Progress window displays, followed by the Verify Progress window.
13. When the backup and verification are complete, the window in Figure 227 displays.

Figure 227. SQL Server Enterprise Manager window

Restoring Files on Windows 2000

A system administrator may be asked to restore the system in case of disk failure, or change in computer equipment.

- If a catastrophic failure occurs, install the operating system, any new drivers or patches to the operating system, and the Facility Commander software and any patches in this order.
- To completely restore the system, a system administrator should restore the last “normal” backup prior to the target date.
- Follow this by restoring the last “differential” backup prior to the target date, or the sequence of incremental backups between the normal backup that was restored and the target date.

Use these instructions to restore a Windows file system on the same machine.

➤ **To restore the files, follow these steps:**

1. Click **Start** on the taskbar, then select **Programs**, **Accessories**, **System Tools**, and **Backup**. The Backup [Restore] window displays.

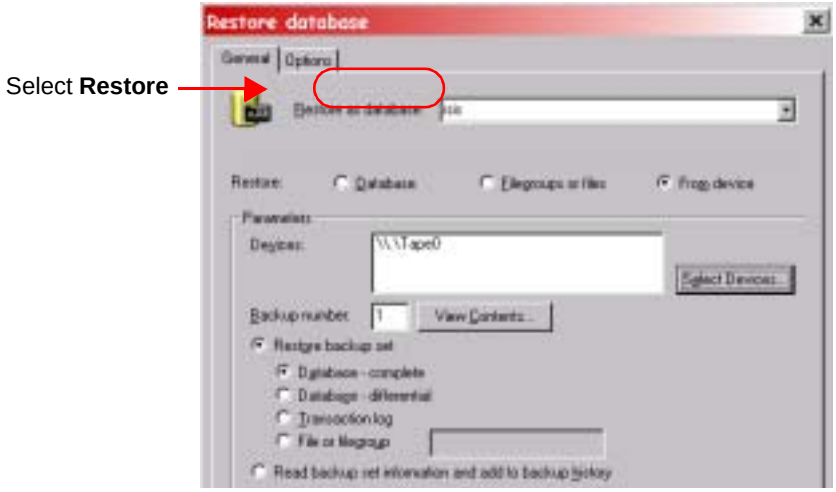


Figure 228. Backup window

2. Select the **Restore** tab. The Restore tab as shown in Figure 228 displays. Locate the tape device and expand the folder to view the contents.
3. Insert the tape in the tape drive. The New Import Media window in Figure 229 on page 358 displays.

Select **Allocate this media to Backup now**.

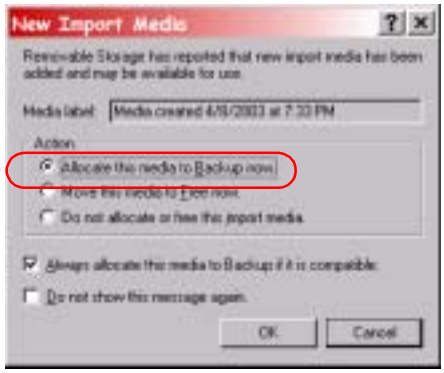


Figure 229. New Import Media window

4. Select **Allocate this media to Backup now**. Click **OK**. The Backup [Restore] window in Figure 230 displays.

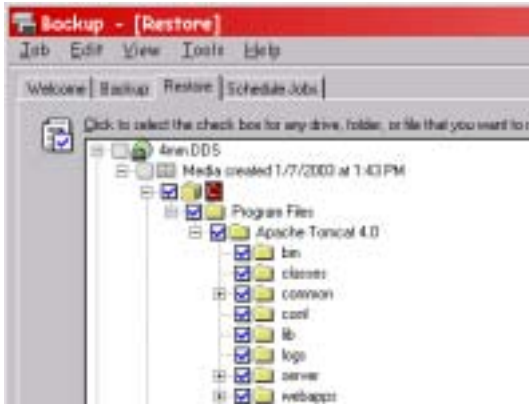


Figure 230. Backup [Restore] window

5. Double-click the media device to catalog the data. This may take a few seconds and the Operation Status window displays until the catalog process is complete.
6. Select the check box next to the drive or folder you want to restore. A check mark indicates the folder, sub-folders, and files are selected.
7. Select **Tools** from the **Backup [Restore]** menu bar and select **Options**. The Options window as shown in Figure 231 on page 359 displays.

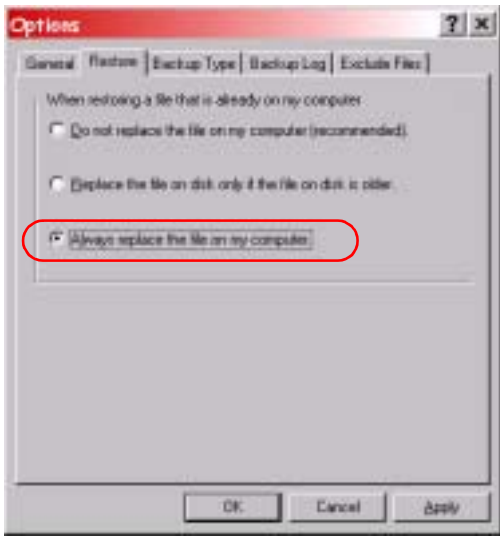


Figure 231. Options (Backup - Restore) window

8. Select the **Always replace the file on my computer** option. Click **OK**. The Backup [Restore] window in Figure 230 on page 358 displays.
9. Select **Original location** from the **Restore files to** drop-down list. This is located in the bottom pane as shown in Figure 232.

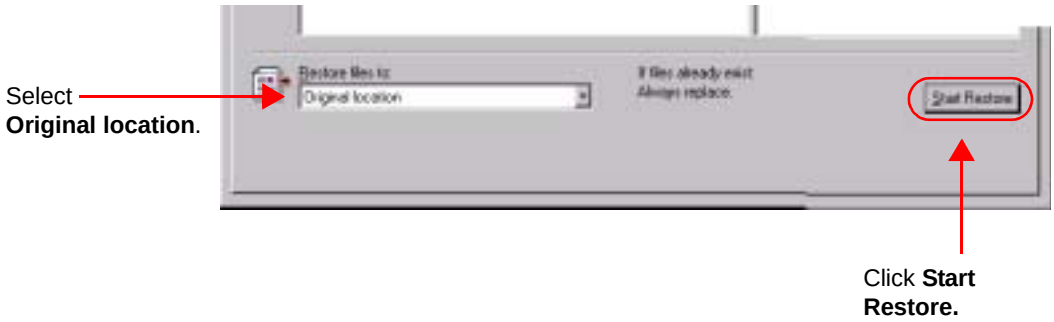


Figure 232. Backup [Restore] window - bottom pane

10. Click **Start Restore**. The Confirm Restore window displays.

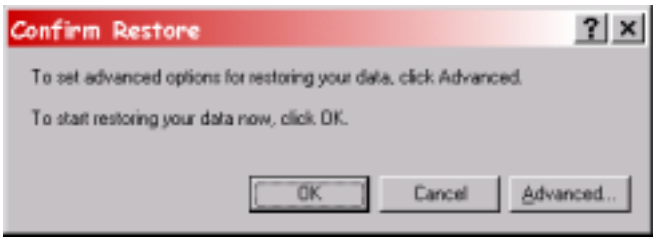


Figure 233. Confirm Restore window

11. Click **OK** to begin restoring the data. The Restore Progress window as shown in Figure 234 on page 360 displays. This window lists the device, media name, and other details. A Waiting for Tape window displays.

Figure 234. Restore Progress window

12. Click **Close** when the restore process is complete. During the restore process, a **Cancel** button displays.
13. A message similar to this may display: **Some of the files restored require you to shut down and restart your computer to complete the restore. Do you want to restart your computer now?** Click **OK**.

Restoring a SQL Server 2000 Database

Use the Microsoft SQL Enterprise Manager application to restore the database to the Facility Commander server. *The Facility Commander service cannot be running during the restore process*.

➤ **To restore the database, follow these steps:**

1. Click **Start**, and then select **Programs**, **Microsoft SQL Server**, and **Enterprise Manager**. The SQL Server Enterprise Manager window displays.

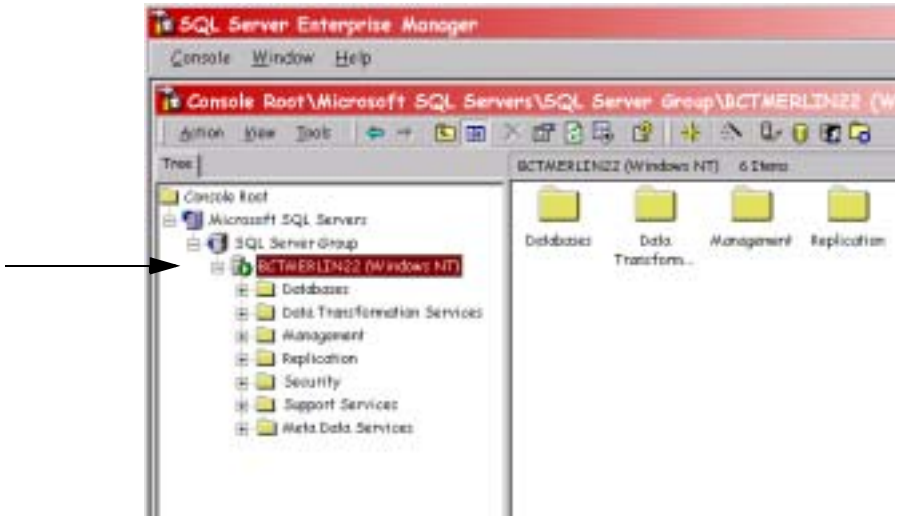


Figure 235. SQL Server Enterprise Manager window

2. Locate the database server and from the Console Root window, select **Tools**, and then **Restore Database**. The Restore Database window in Figure 236 on page 362 displays.

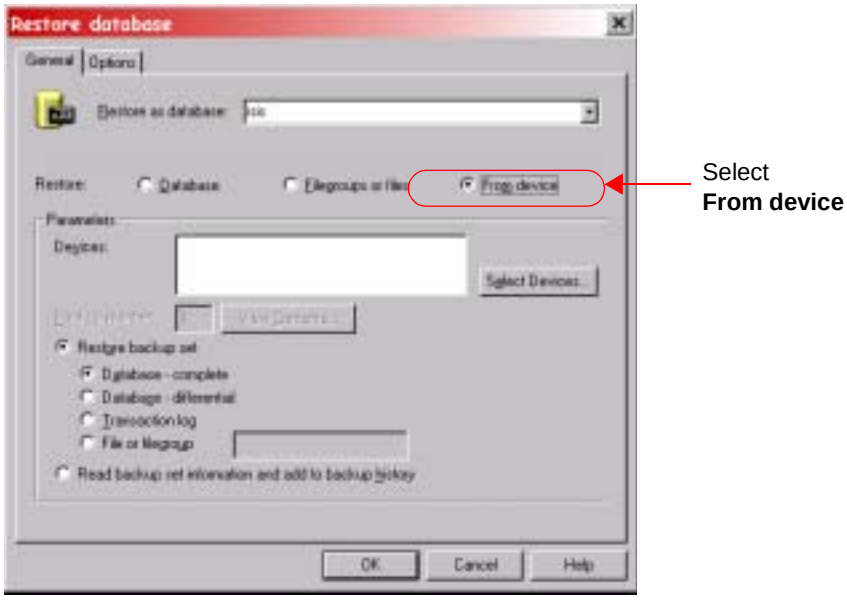


Figure 236. Restore database window

3. Select the **From device** option and the window changes its appearance.
4. Select **Select Devices** and the Choose Restore Devices window in Figure 237 displays.

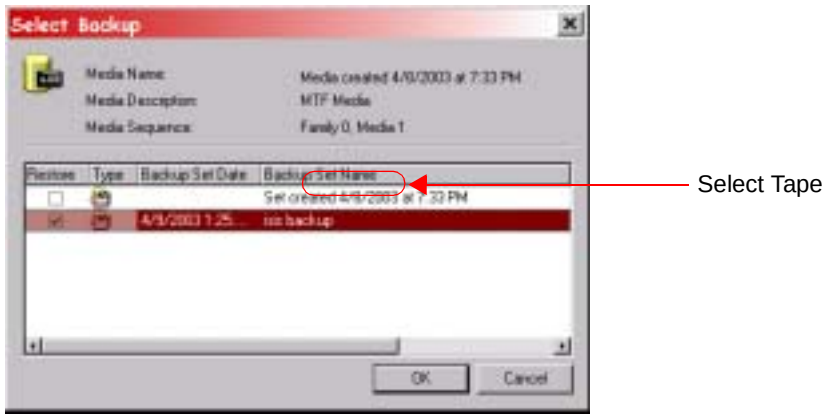


Figure 237. Choose Restore Devices window

5. Select the **Tape** option. Click **Add**. The Choose Restore Destination window in Figure 238 on page 363 displays.

Figure 238. Choose Restore Destination window

6. Confirm the correct tape is selected. If not, select the correct tape from the **Tape** drop-down list. Click **OK**. This window closes and the Choose Restore Devices window in Figure 239 on page 363 displays.

Figure 239. Choose Restore Devices window

7. Click **OK** and the Restore Database window in Figure 240 displays.

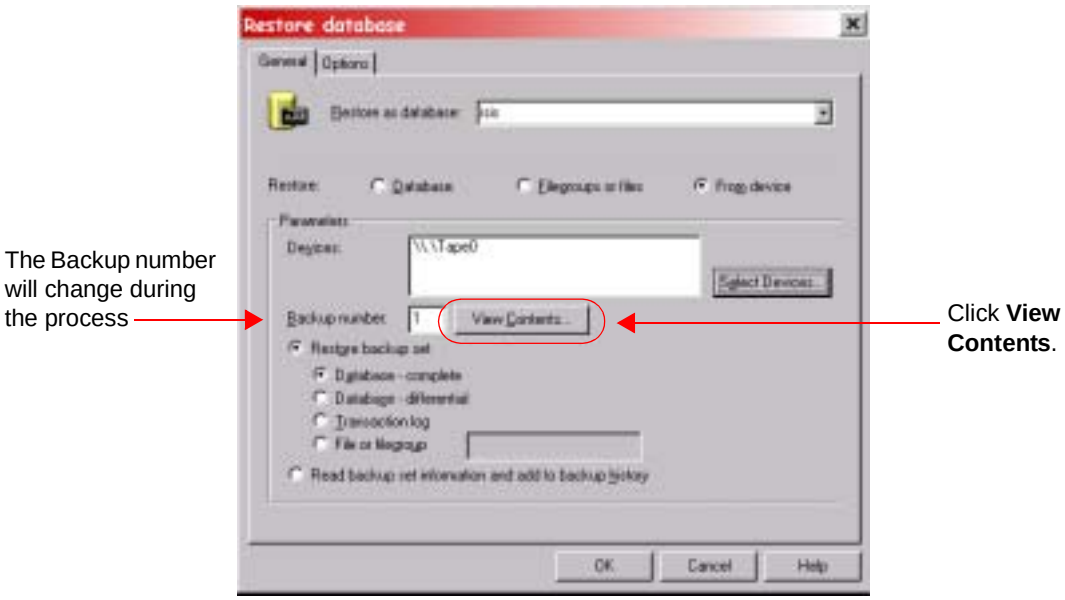


Figure 240. Restore database window

8. Click **View Contents**. Wait while the tape is read and when the process is finished the Select Backup window in Figure 241 on page 364 displays. The backup number will change to reflect the backup set selected.

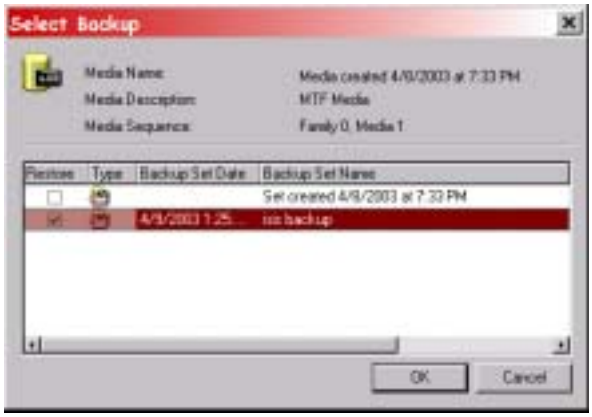


Figure 241. Choose Restore Devices window

9. Select the database you want to restore. Click **OK**. The Restore Database window Figure 240 on page 364 displays.
10. Select **Read backup set information and add to backup history** and click **OK**.

Figure 242. Restore Progress

11. The Restore Progress window in Figure 242 displays. When the restore process is complete a window displays with this message: **Successfully loaded backup set history**. Click **OK**.
12. From the **Console Root** window, select **Tools**, and then **Restore Database**. The Restore database window in Figure 240 on page 364 displays.
13. Select the backup set and Click **OK**. The Restore Progress window in Figure 243 displays.

Figure 243. Restore Progress window

14. When the restore process is completed, a window displays with this message: **Restore of the database "isis" completed successfully**. Click **OK**.

Chapter 18. Backup/Restore Informix and Oracle Databases

This chapter describes the backup and restore procedures for Linux and AIX files; and Informix and Oracle databases.

In this chapter:

Overview on page 368
Requirements (Tape Backups) on page 369
Backing Up Database Records on page 370
Restore Procedures on page 375

Overview

Backups let you copy data to a file or tape device. When you back up data to a tape, you must have a tape device connected to the computer. If a tape device is not available, you can back up the data to a file and transfer the file to a safe place for storage.

It is a good practice to back up the data stored on the Facility Commander server at regular intervals. If the original data stored on the server's hard disk becomes inaccessible because of a system malfunction, you can use the backup data to restore the lost or damaged data.

This chapter describes how to back up selected files and folders; and restore the backed up files to the original hard disk or a new hard disk.

Backup Modes

Facility Commander provides a backup utility for backing up files and database records to a tape device, which is the default setting. If you want to back up the files to disk, you will need to edit two configuration files to change the output destination to disk.

To edit the configuration files, refer to Appendix A on page 425, which includes:

- *Editing the Backup Utility Configuration File* on page 427
- *Editing the Informix Configuration File* on page 428
- *Scheduling the Backup Utility* on page 429

Use Table 64 to select the appropriate mode and device to back up the Facility Commander database records.

- If you are using an Oracle database, the only available option is to back up the database to a tape.
- If you are using an Informix database, back up the database to a tape device or disk. To do this, you must edit the backup utility and Informix configuration files to redirect the output to disk.

Once you edit the configuration file to change the output to disk, instead of tape, the backup utility will not be able write to tape because of the changes in the configuration file.

Table 64. Databases and Backup Modes

Database	Mode	Backup Device
Oracle	Interactive	Tape only
Informix	Interactive	Tape or disk
Informix	Scheduled (Cron)	Disk only

Backup Types

There are two types of backups — full and incremental. A full backup includes the entire database contents. If you choose to backup to disk, a full backup is done.

Incremental backups, sometimes called differential backups, only record those portions of the system that have been modified since the last full backup.

It is recommended that you perform a full backup at regular intervals.

Requirements (Tape Backups)

A minimum of two tapes is required to create a system backup. One tape is used to record the database backup, while the other is used to record the backup files. Depending on the amount of data to be backed up, additional tapes are “spanned” to contain the information.

Tape Labels

Backup tapes must be identified clearly. Record the following information:

- Type (Full or Incremental)
- Date
- Tape number and the number in the series, such as: 1 of 2 and 2 of 2.

During file backups, the log file name is displayed and contains both the backup type and date. Refer to Figure 249 on page 374 for an example. In addition, include the referenced full backup log file.

For the database backups, each database may have information that is unique to the vendor and should also be recorded on the tape label.

The Informix backup program prints out the IDs of logical logs that are recorded to the tape backup. Record these IDs on the tape label as well. This information is useful during the process that includes restoring the archived logical logs.

Backing Up Database Records

These instructions describe how to complete a full backup of the files and database records. There are small differences if you are doing an incremental backup, and those differences are noted.

The database and files are backed up using **`BackupUtility`**, which is a command line script. The script first backs up the database, verifies the backup, and then begins to back up the files.

➤ **To begin the back up process, follow these steps:**

1. Open a terminal window. If you are not logged into the system as “root”, you will be prompted for the root password. This is required to ensure access to all resources.
2. Start the backup utility and the window in Figure 244 displays.
   - For Linux/Informix: Double-click the **Backup Utility** icon.
   - For AIX, type: **`cd /usr/BackupUtility [Enter]`**
     `sh BackupUtility [Enter]`

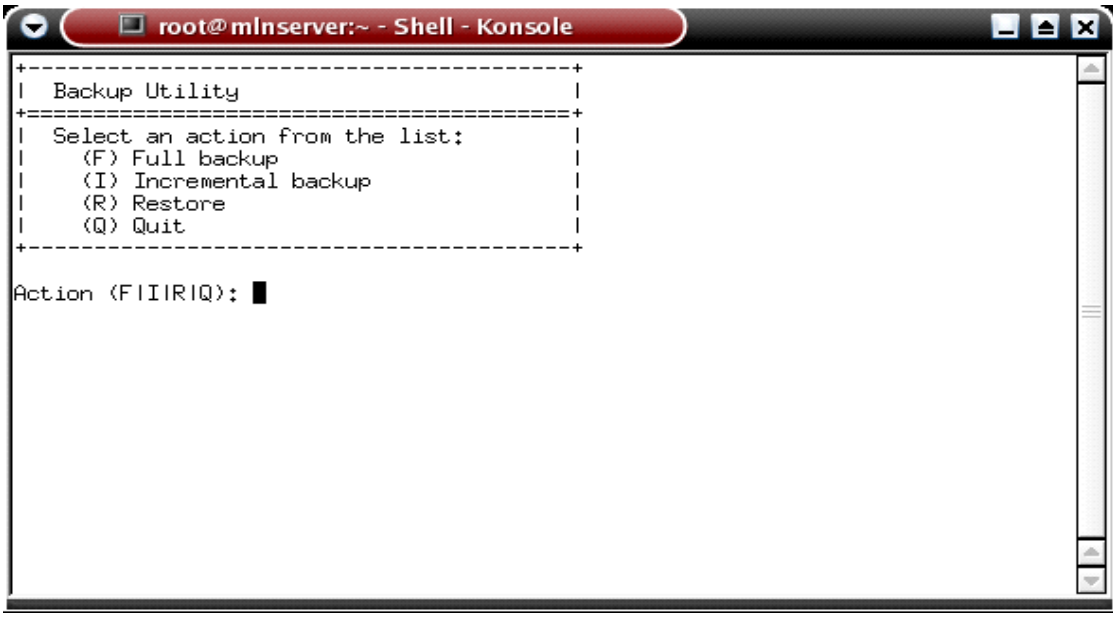


Figure 244. Backup Utility

3. Type the appropriate letter to select the backup type, such as:
   - **F** to complete a full backup
   - **I** to complete an incremental backup.

   This menu is also used to restore a backup or to exit this program.

Informix Database

The Informix database is backed up using the **`ontape`** utility application. When the backup procedure is started, the window in Figure 245 displays.

Figure 245. Starting a full-level database backup

1. Insert the tape in the tape drive, wait for computer system to recognize the tape, and press **Enter**. The window in Figure 246 displays.

   A message displays stating the type of backup. “Level O” indicates a full backup, while “Level 1" indicates an incremental backup.

Record the IDs of the logical logs to the backup on the tape label.

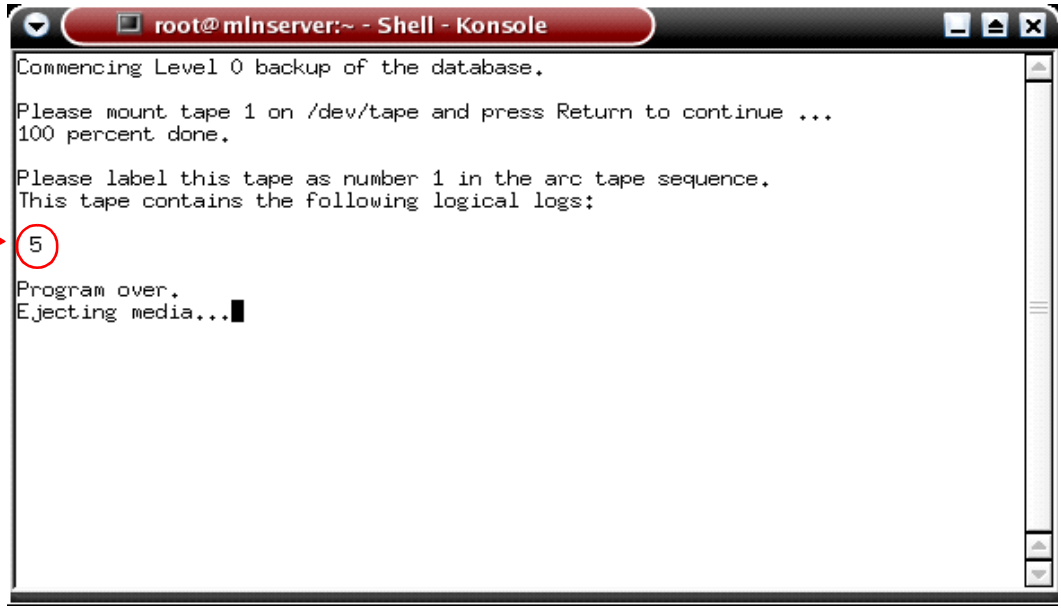


Figure 246. Database backup complete

2. A message displays with the process of the backup. When the backup is complete, a message displays reporting which logical logs were recorded to the tape during the backup process. Record the identification of the logical logs written to the backup on the tape label.

Backup verification process

Figure 247. Backup verification

3. Insert tape number one when the verification is complete and type: **1** to continue. Press **Enter**.

   As each tape is verified, a prompt displays to insert the next tape in the series. When the last tape in the series has been verified, or if you do not want to continue, type: **0**. Press **Enter**.

Backing Up Files

After the database backup verification is complete, the process of backing up files begins. The window in Figure 248 displays.

Figure 248. Start backup of files

1. Insert the tape in the tape drive, wait for computer system to recognize the tape, and press **Enter**. The window in Figure 249 displays. The list of files being backed up scrolls as the files are written to the tape.

   Note: On AIX systems, the backup process begins immediately when **Enter** is pressed. Failure to insert a tape, use a read-only tape, or pressing the **Enter** key too early will result in a program error.

2. If the number or size of the files is sufficiently large, the tape will become full and you will be prompted to replace the tape. This prompt is repeated each time a tape is filled to capacity. In many cases, one tape is sufficient and you will not see this message.

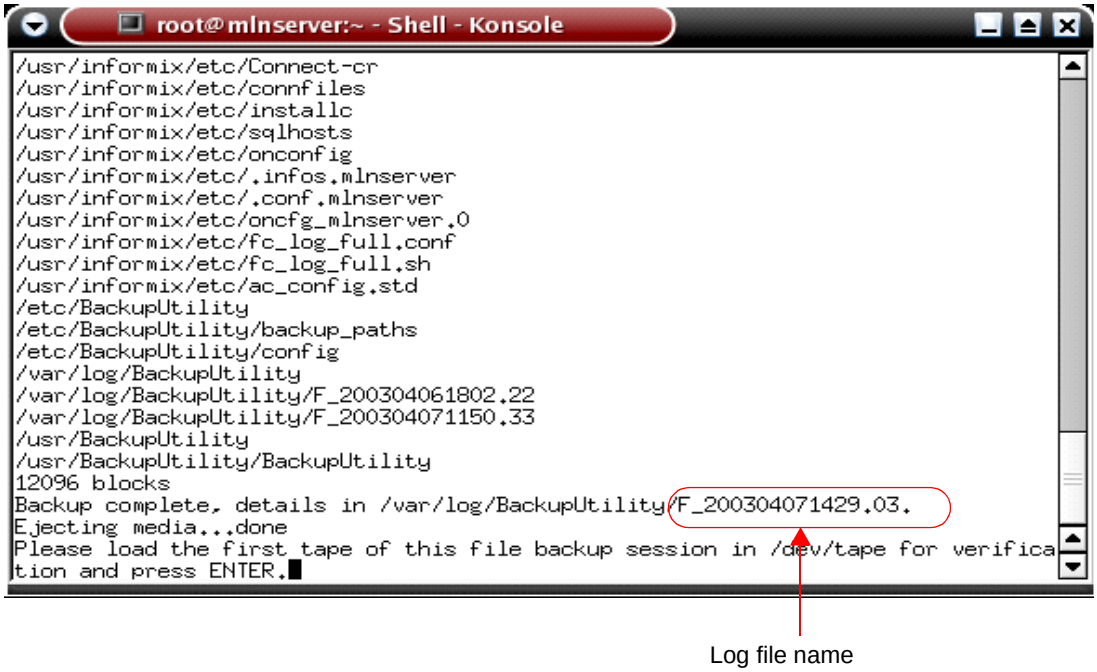


Figure 249. Waiting to start file backup verification

3. When the backup is complete, a message displays with the details of where the log is stored and the last tape is ejected. Record this information to view the logs at a later date.
4. Insert the first tape in the series to verify the backup and press **Enter**. This verification only tests the readability of the tape and not the contents of the tape. The window in Figure 250 on page 375 displays next.

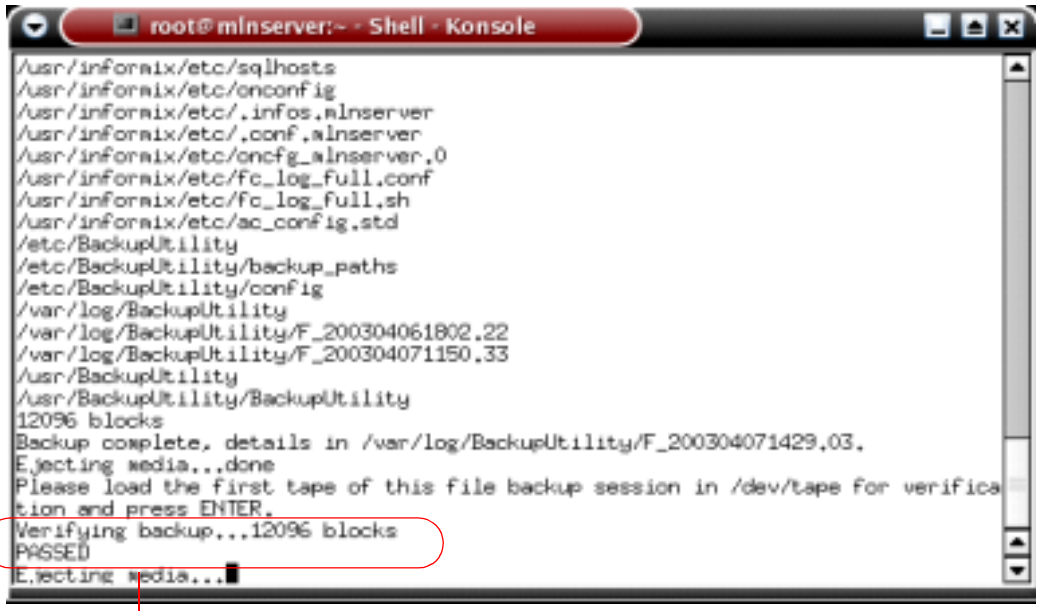


Figure 250. Successful file backup verification

5. Remove the tape and store it according to your organization's policy.
   - If you are using an Imation™ Travan™ tape, it will not be ejected automatically. Remove the tape from the drive to prevent any problems with loading future tapes.

Restore Procedures

This section describes the restore process as if the Facility Commander server disk drive fails. Previous to restoring the data, the system administrator should:

- Install the operating system
- Install the database
- Install Facility Commander software

Also, install all patches or upgrades that are appropriate. The machine should have the same configuration as the original hardware when the backups were completed.

When the Restore action is selected, the program preforms a pre-restoration check to verify the system is in an appropriate state. These checks depend on the database.

The Informix database must be shut down before it is restored. You will be unable to restore the Informix database before shutting it down. An error message displays. Use the command "`service Informix stop`" to shutdown the database.

➤ **To begin the restore process, follow these steps:**

1. Insert the tape in the tape drive, wait for computer system to recognize the tape, and press **Enter**.
2. Open a terminal window. If you are not logged into the system as "root", you will be prompted for the root password. This is required to ensure access to all resources.
3. Start the backup utility and the window in Figure 251 displays.
   - For Linux/Informix: Double-click the **Backup Utility** icon.
   - For AIX, type: **`cd /usr/backuputility [Enter]`**
     `sh backuputility [Enter]`

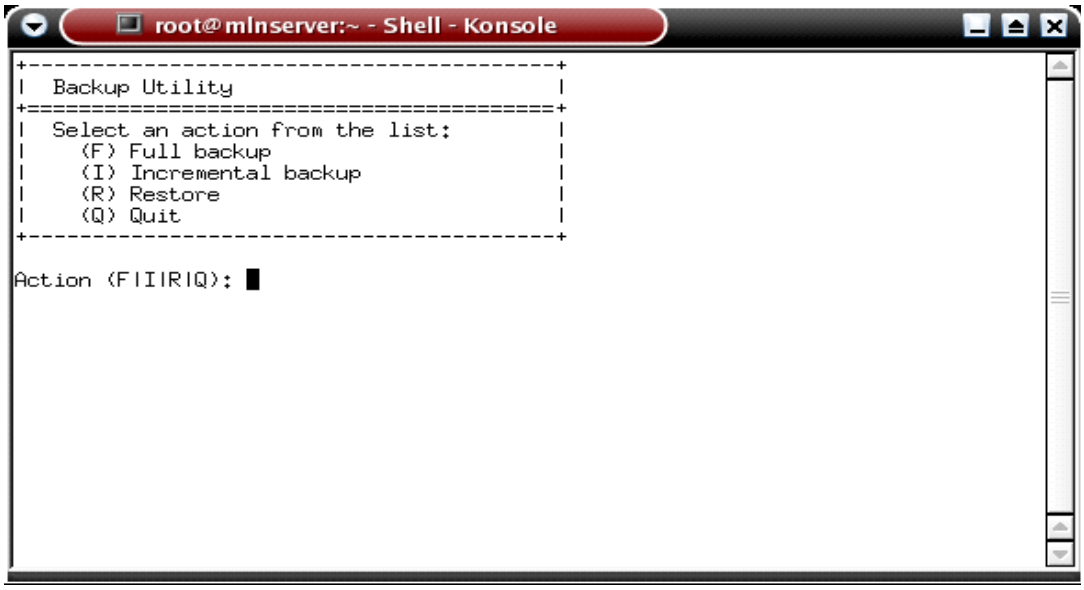


Figure 251. Backup Utility

4. Type **R** to begin the restore process.

.

Figure 252. Start Restore process with tape in drive

5. Type: **Y** to indicate the tape is loaded and the program begins restoring the files from the tape. If you type **N** indicating the tape is not the first in the series, the program will eject the tape.

   Failure to insert a tape, using a read-only tape, or pressing the **Enter** key too early will result in a program error and the process must be started over.

6. If the backup is comprised of multiple tapes, this message displays each time a tape is restored: **Found end of volume. Load next volume and press RETURN**.

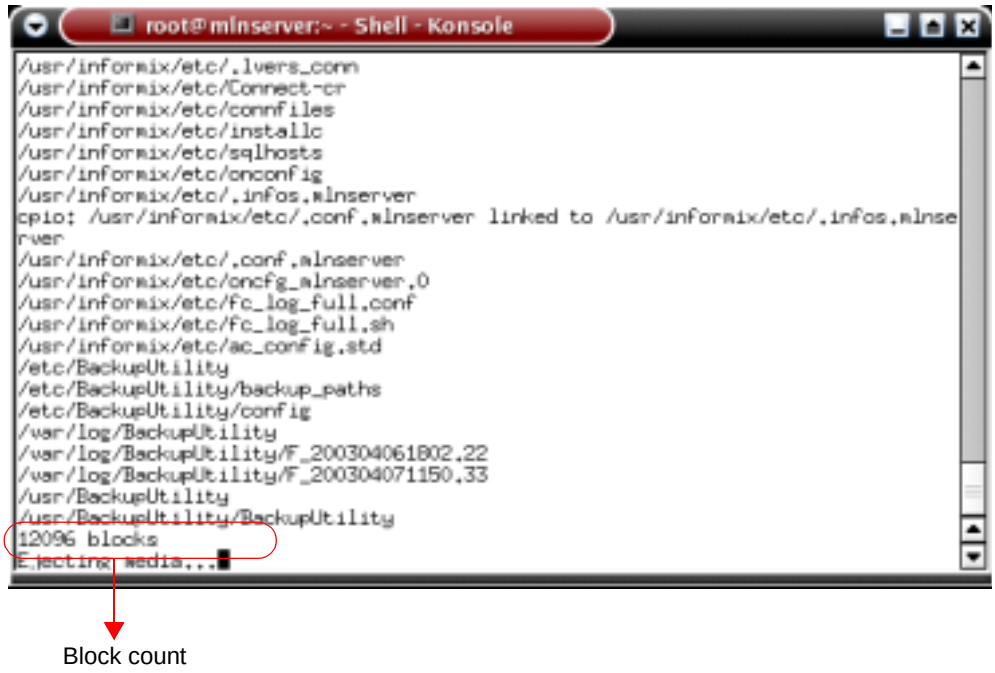


Figure 253. File restoration complete

7. Remove the tape and store it according to your organization's policy.

Restore Incremental Backups

After the files are restored, the incremental backups should be restored. The window in Figure 254 displays next.

Figure 254. Restore incremental backups

1. Type: **Y** to indicate an incremental backup will be restored. If you type **N** to indicate there are no incremental backups, the program continues to the next step, which is to restore the database.

Restore Database

When the program begins to restore the Informix database, a long pause occurs. A window displays during this pause.

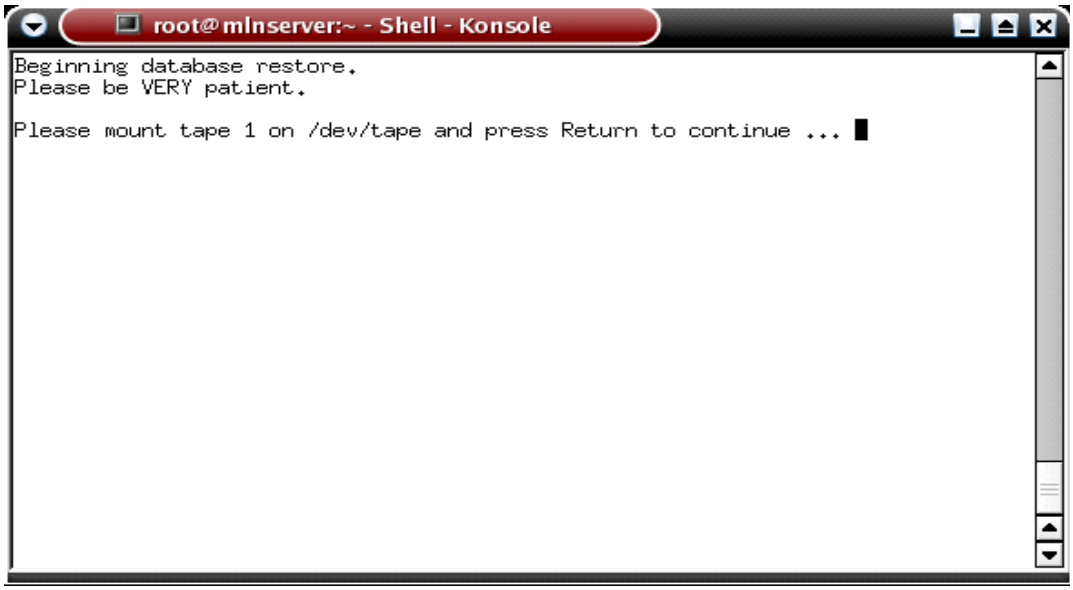


Figure 255. Wait for database tape to be loaded

1. Insert the tape in the tape drive, wait for computer system to recognize the tape, and press **Enter**. The program reads information from the tape and displays the details in the window as shown in Figure 256.

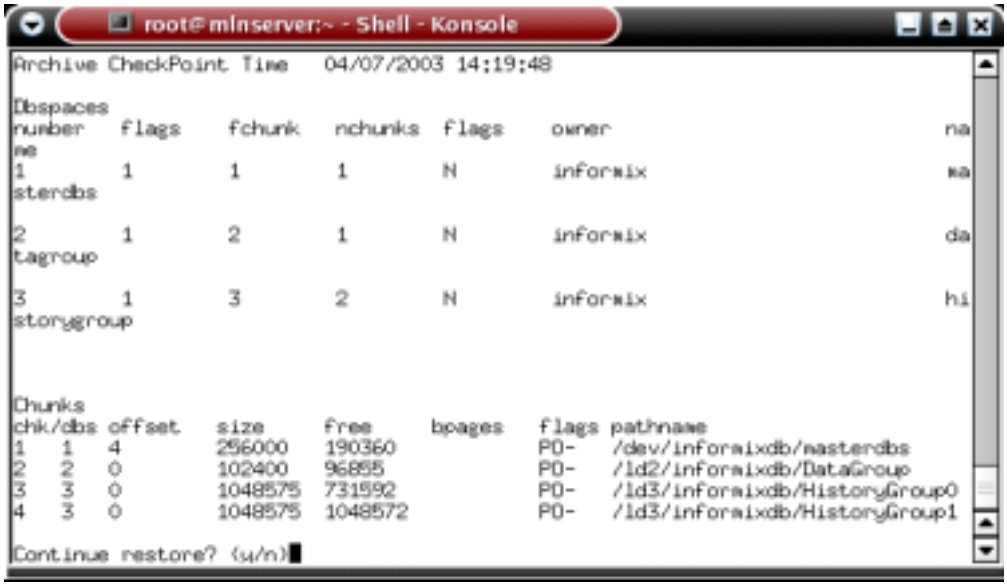


Figure 256. Restore details

2. Type: **Y** when this message displays: **Continue restore?**

3. Type: **Y** when this message displays: **Do you want to back up the logs?**

   The logs contain details of the database transactions (database already residing on disk drive). If you have problems with your database, these logs may be used to recover transactions that have occurred since the last backup.

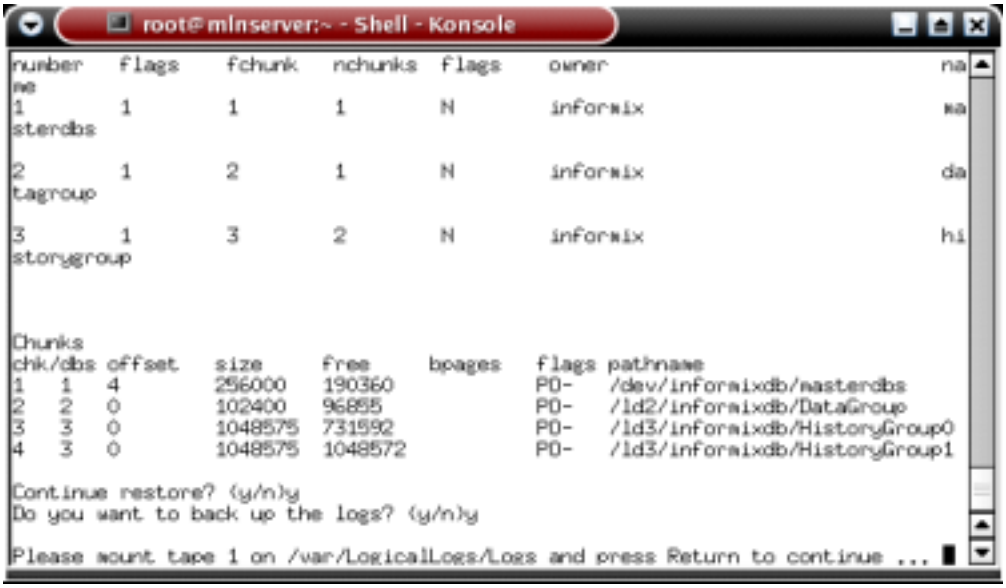


Figure 257. Prompt for salvaging logs

4. Insert the tape to store the logical log files. The device name listed is a file stored on the disk drive. Press **Enter** and the window in Figure 258 displays.

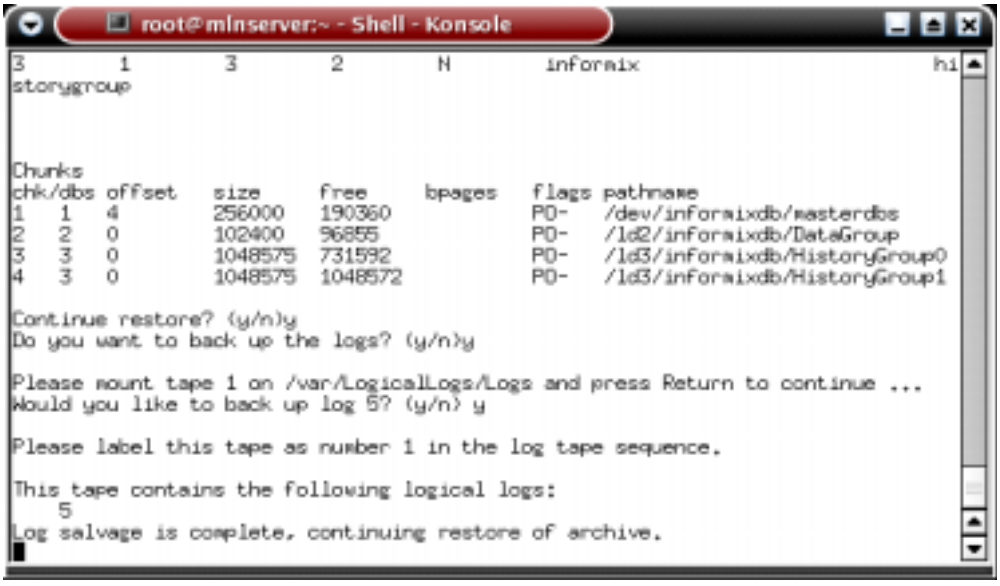


Figure 258. Logical logs restored

5. After the logical logs are restored, the process of restoring the database begins. The window displays messages to describe the process. When the database is restored, this message displays: **Restore a level 1 archive?**

   If you have incremental backup tapes that you want to restore, type: **Y**. The program repeats the process used to restore the database. The window in Figure 259 displays next.

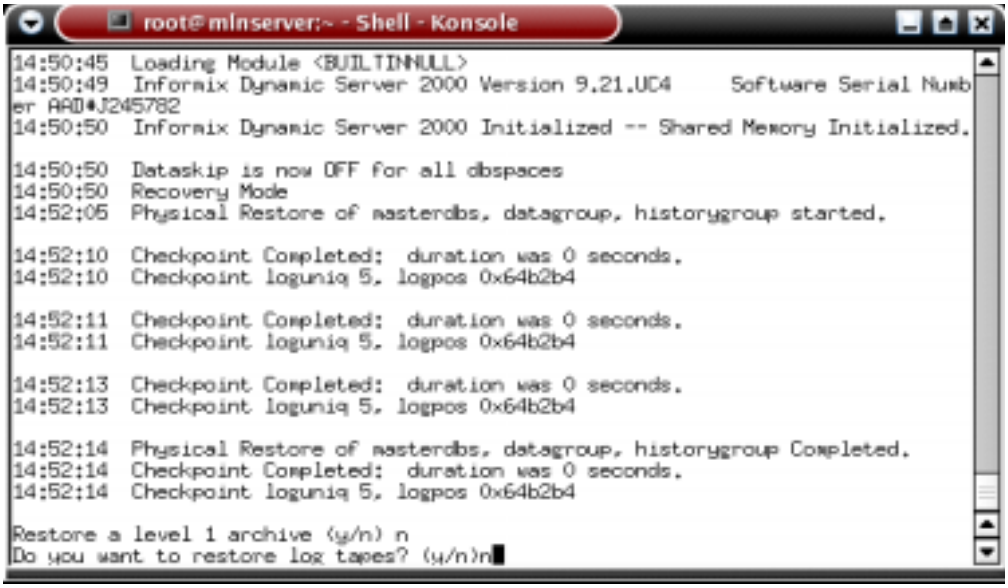


Figure 259. Restore log tapes

6. Type: **N** to skip this step. Use the logical logs to recover transactions that have occurred since the last regular backup. It is not recommended to use the logs unless you are familiar with this process, which is not described in this document.

The window in Figure 260 on page 383 displays next.

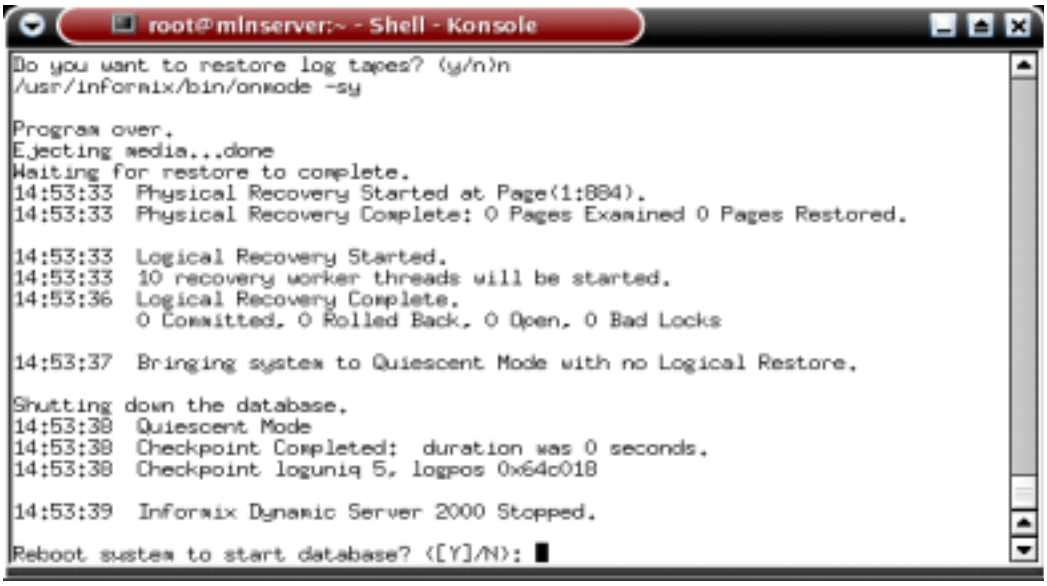


Figure 260. Reboot system to start database

7. The program ends, the tape is ejected from the tape drive, and you are prompted to reboot the system to start the database.

Chapter 19. Viewing Diagnostics

This chapter describes the different diagnostics used to troubleshoot the system. The system administrator should not change these settings unless instructed to do so by Customer Support.

In this chapter:

Overview on page 386
Changing Diagnostics Settings on page 387
ATS Panel Intrusion on page 389
Database Connection Pool on page 390
Database Transactions Diagnostics on page 391
Database Queries Diagnostics on page 392
Facility Membership Cache on page 393
JVM Statistics on page 394
Media Diagnostics on page 395
Service Framework Diagnostics on page 396
System Status Diagnostics on page 397
Thread Pool Manager Diagnostics on page 398

Overview

The Diagnostics page shown in Figure 261 on page 387 keeps track of all the software components that generate diagnostic information. Diagnostics provides statistics on the following components:

- ATS Panel Intrusion Proxy Host ATS Panel
- Database Connection Pool
- Database Queries
- Database Transactions
- Facility Membership Cache
- JVM Statistics
- Media Diagnostics
- Service Framework
- System Status
- Thread Pool Manager

Each server has a server-wide configuration for diagnostics, which can be:

- **Disabled**. The server is not receiving any diagnostic information. Disabled is the default setting.
- **Enabled**. The information is written to the database. When you reset the system, the information is not lost.

The system administrator should not change these settings unless instructed to do so by Customer Support. The performance of the system could be affected if any of these settings are enabled. If you have any questions concerning these settings, please contact Customer Support.

Changing Diagnostics Settings

Use the **Diagnostics** list page shown in Figure 261 to view the diagnostic settings. This page allows you to edit or view diagnostic settings.

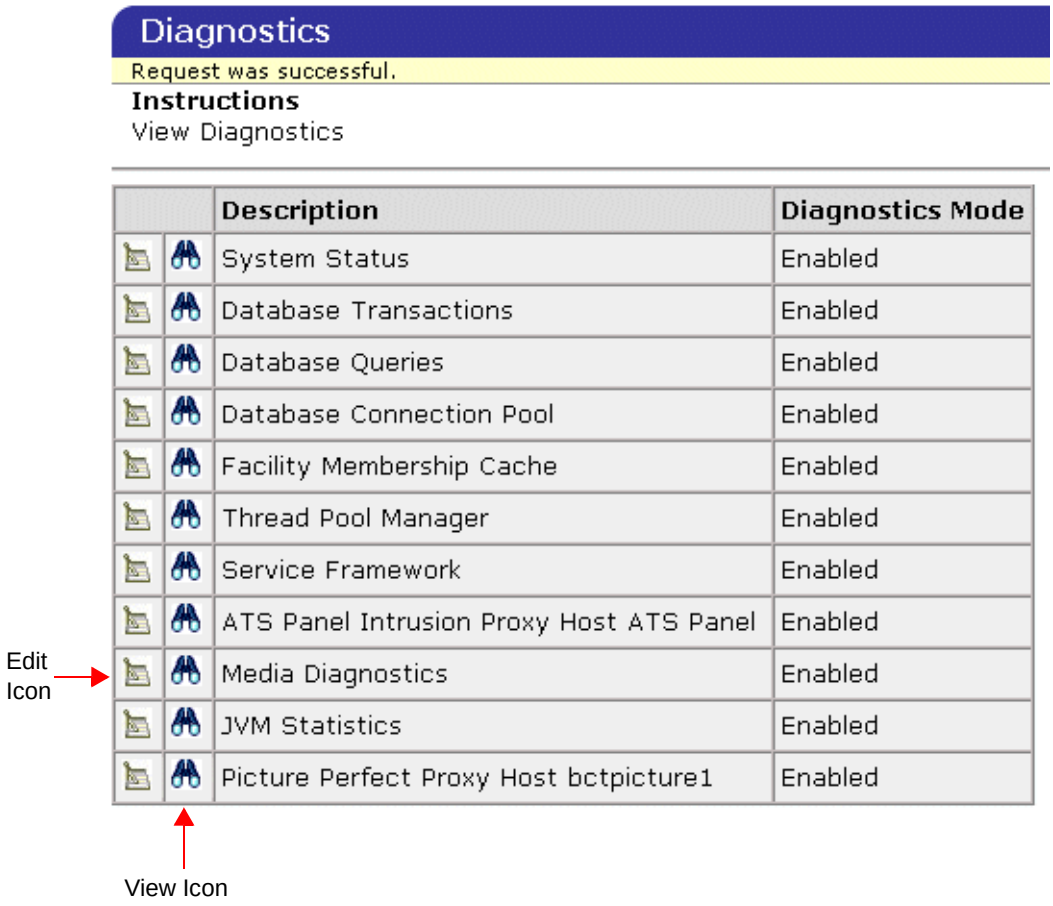


Figure 261. Diagnostics page

Editing the Diagnostics Settings

Selecting the **Edit** icon allows you to change the diagnostics mode and identify the log interval (how often the statistics are written to a log).

➤ **To change the settings, follow these steps:**

1. Select **System Diagnostics**.
2. Select **Diagnostics Statistics**. The Diagnostics list page shown in Figure 261 displays.
3. Click the **Edit** icon next to the component you want to change. The Configure Diagnostics page shown in Figure 262 on page 388 displays.

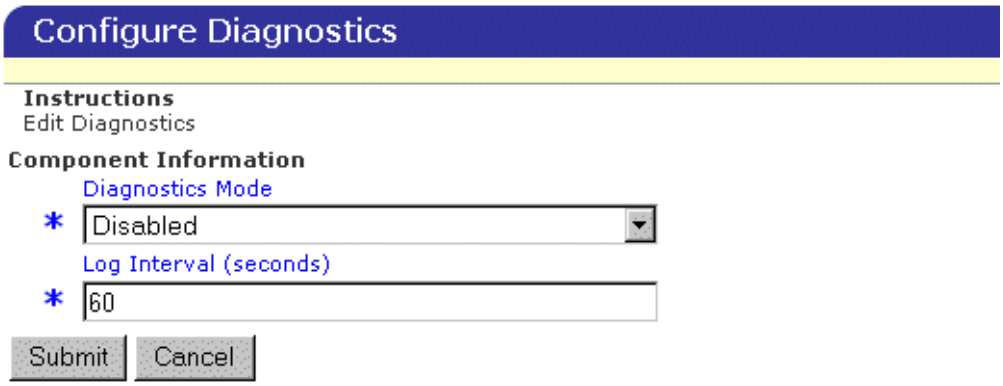


Figure 262. Diagnostics Edit page

4. Enter the information described in Table 65 to change the diagnostic settings.
5. Click **Submit** to change the record.

Table 65 lists and describes the fields on the Diagnostic Edit page.

Table 65. Diagnostic fields and descriptions

Field Name	Description
Diagnostics Mode	Use the drop-down list to select the appropriate mode — Disabled or Enabled. The default value is Disabled.
Log Interval (in seconds)	Enter the number of seconds to wait before new information is written to the log. The default value is 60 seconds.

Resetting Diagnostics Statistics

➤ **To reset the statistics for any component, follow these steps:**

1. Select **System Diagnostics**.
2. Select **Diagnostics Statistics**. The Diagnostics list page as shown in Figure 261 on page 387 displays.
3. Click the **View** icon next to the component you want to change. The component's diagnostic page displays.
4. Click **Reset Statistics**.
5. Click **Back to Diagnostics Home Page**.

ATS Panel Intrusion

Use the Component Diagnostics page shown in Figure 263 to view the following statistics:

- Ping interval
- Reconnect interval
- Online
- Connection state
- Number of messages not acknowledged by panel
- Number of messages received
- Number of polling attempts sent
- Number of panel events published
- Number of input events published
- Number of invalid packets received

The Component Diagnostic displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostic list page.

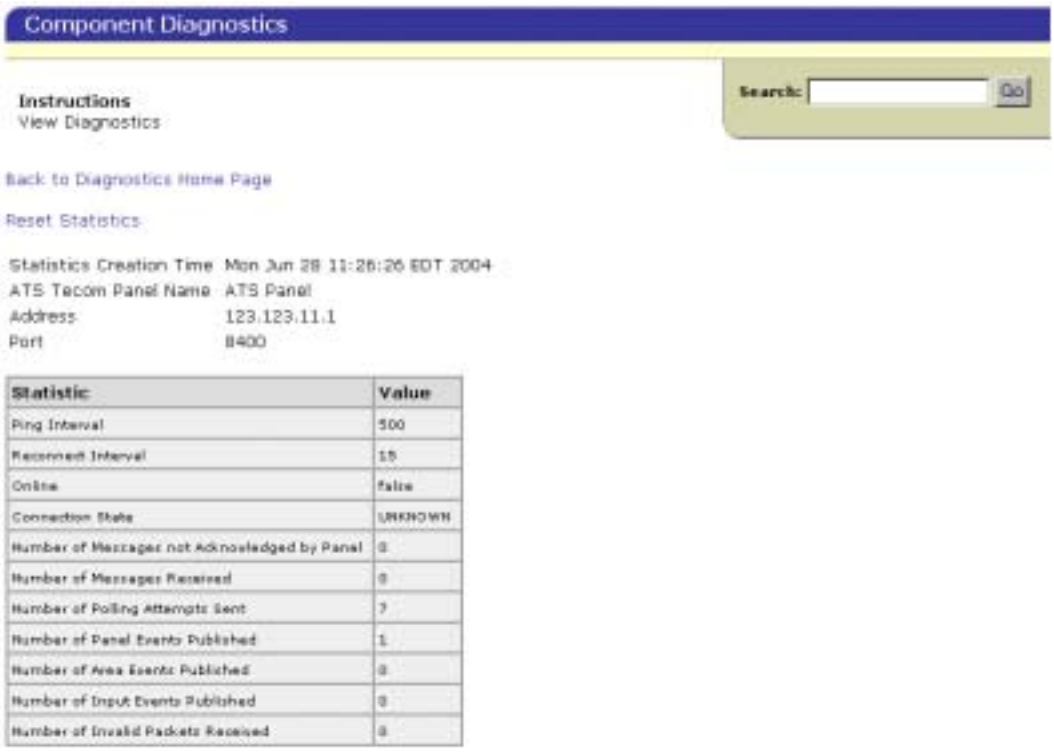


Figure 263. Component Diagnostics page

Database Connection Pool

Use the Database Connection Pool page shown in Figure 264 to view the following statistics:

- Connection pool size
- Highest connection used
- Number of leases obtained
- Average lease time
- Number of lease waits
- Average lease wait time

The Database Connection Pool page displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostics list page.

Figure 264. Database Connection Pool page

Database Transactions Diagnostics

Use the Database Transactions Diagnostics page shown in Figure 265 to view the following statistics:

- Transactions
- Number
- Average (milliseconds)
- Minimum in (milliseconds)
- Maximum in (milliseconds)
- Commits
- Rollbacks

The Database Transactions Diagnostics page displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostics list page.

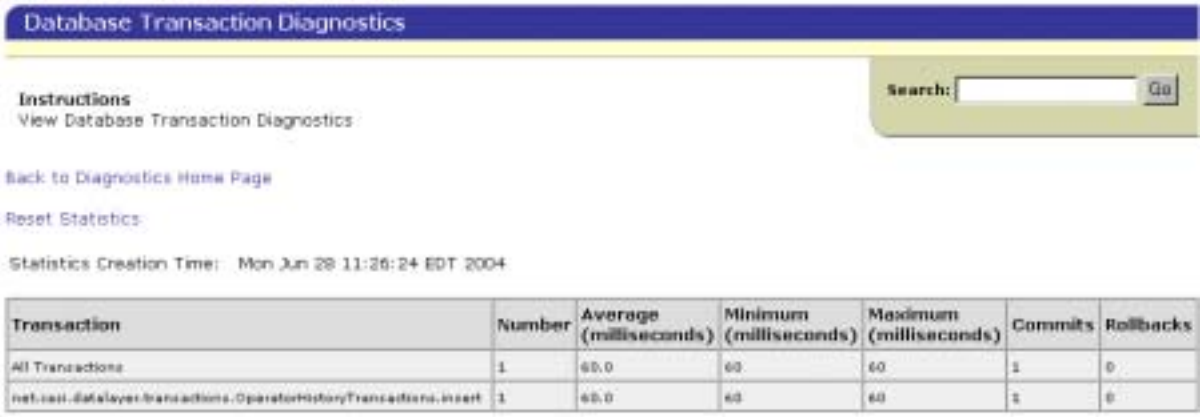


Figure 265. Database Transactions

Database Queries Diagnostics

Use the Database Query Diagnostics page shown in Figure 266 to view the following statistics:

- Query name
- Number
- Average (milliseconds)
- Minimum (milliseconds)
- Maximum (milliseconds)

The Database Query Diagnostics page displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostics list page.

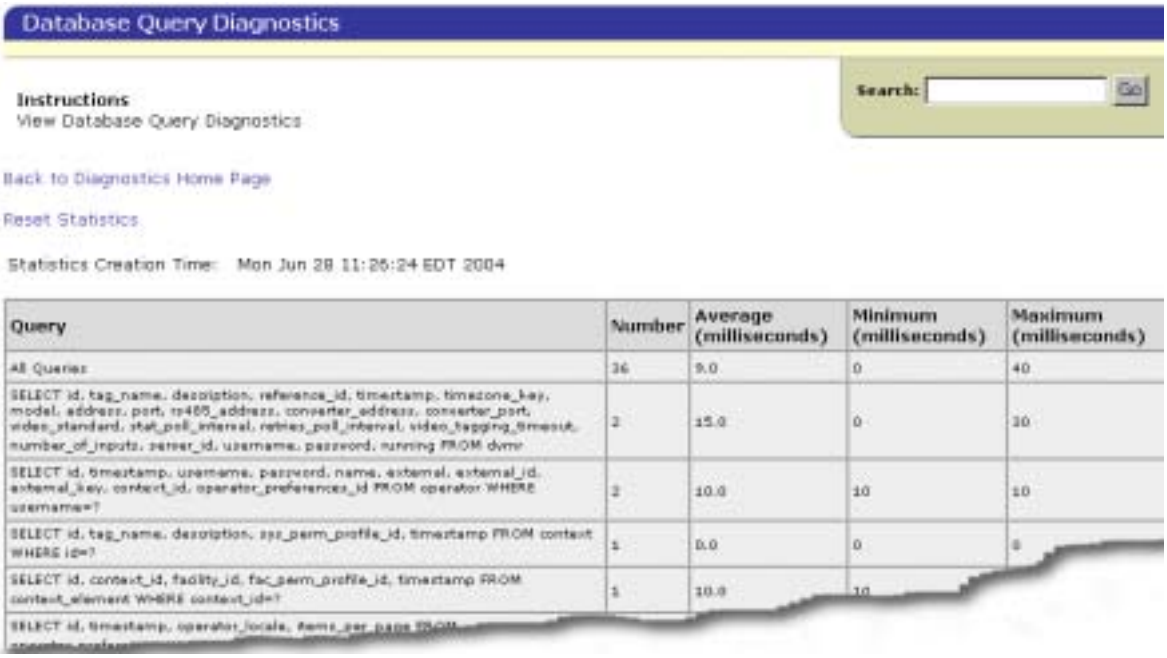


Figure 266. Database Queries page

Facility Membership Cache

Use the Facility Membership Cache page shown in Figure 267 to view the following statistics:

- maximum cache Size
- Current size
- Total misses
- Total hits
- Hit percent
- Cache purges

The Facility Membership Cache page displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostics list page.

Figure 267. Facility Membership Cache page

JVM Statistics

Use the JVM Diagnostics page shown in Figure 268 to view the following statistics:

- Maximum amount of memory available
- Total memory claimed
- Free memory available

The number of available processors is also listed on this page.

The JVM Diagnostics page displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostics list page.

Figure 268. JVM Diagnostics page

Media Diagnostics

Use the Media Diagnostics page shown in Figure 269 to view the following statistics:

- Total KB per second
- Percentage of 10 MB network
- Percentage of 100 MB network
- DVRs and workstation host names
- Current kilobytes per second
- Current Frames per second

The Media Diagnostics page displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostics list page.

Figure 269. Media Diagnostics page

Service Framework Diagnostics

The Service Framework Diagnostics page displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostics list page.

- Peak delay through service framework queue for an event (msec)
- Average delay through service framework queue for an event (msec)
- Peak time that an event waited in a mailbox (msec)
- Average time that an event waited in a mailbox (msec)
- Time to wait before processing a mailbox (msec)
- Peak number of client mailboxes serviced
- Minimum remote mailbox dispatch time (msec)
- Maximum remote mailbox dispatch time (msec)
- Maximum total remote mailbox dispatch time (msec)
- Current number of concurrent mailbox dispatch threads
- Peak number of concurrent mailbox threads
- Peak number of concurrent mailbox dispatch threads
- Average number of events sent per xml-rpc mailbox transactions
- Average time it took to filter an event (msec)
- Total number of dropped events
- Total number of events delivered
- Total number of xml-rpc requests/sec
- Max measured deadline timing error (msec)
- Max measured internal clock drift (msec)
- Max processing time to check all mailboxes (msec)

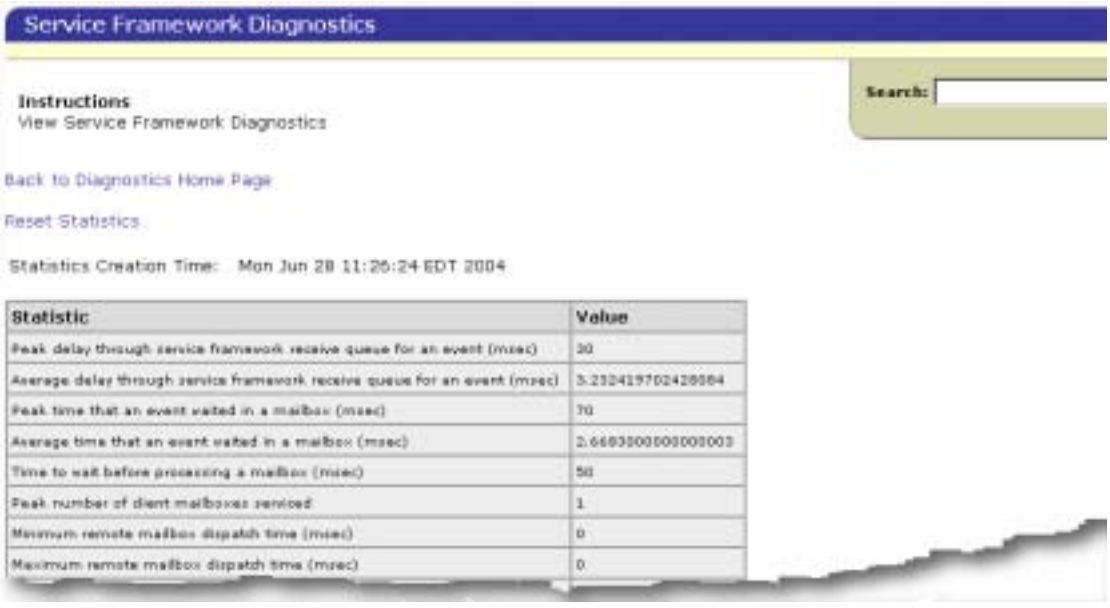


Figure 270. Service Framework Diagnostics page

System Status Diagnostics

Use the System Status Diagnostics page shown in Figure 271 to view the following statistics:

- Number of application servers
- Facility Commander server
- Number of remote media servers
- Number of DVMRs
- Number of client workstations
- Number of managed proxy components

System Status also identifies DVRs and client applications and reports the connectivity status.

The System Status Diagnostics page displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostics list page.

Figure 271. System Status Diagnostics page

Thread Pool Manager Diagnostics

Use the Thread Pool Manager Diagnostics page shown in Figure 272 to view the following statistics:

- Minimum and maximum thread pool size
- Peak number of concurrent threads
- Peak threads pending and waiting for service
- Elapsed longest pending thread wait time
- Current number of threads assigned and running
- Current number of threads waiting to run

The Thread Pool Manager Diagnostics page displays the date and time the last event was written to a log. Use this page to reset the statistics and to return to the Diagnostics list page.

Figure 272. Thread Pool Diagnostics

Chapter 20. Advanced Configuration

This chapter describes how to customize the Facility Commander Launcher window, verify the server's host name, and change the host name.

Readers should be familiar with using a text editor application.

In this chapter:

Customizing Launcher Window on page 400
Verifying Computer Host Name on page 402
Changing the Host Name or IP Address on page 403
Enabling SSL Encryption for Picture Perfect on page 412
Enabling SSL Encryption for Secure Perfect on page 423

Customizing Launcher Window

You can customize the Facility Commander Launcher window by changing the existing icons or by adding up to six additional applications, such as WaveReader or any other application you use often.

The Facility Commander Launcher on Window client systems is modified by changing to the client properties file, refer to:

- *Adding Custom Icons*
- *Adding External Applications* on page 401

Adding Custom Icons

➤ **To add custom icons to the Launcher window, follow these steps:**

1. On the Facility Commander client system, open the `client.properties` file using a text editor such as Notepad. The client properties file is found in a directory similar to this:

   `C:\Program Files\FacilityCommanderClient\resources`

   (The path may differ depending on where Facility Commander was installed on the system.)

2. Enter the text shown in Table 66 for each icon you want to change.

Table 66. Add Custom Icons to Launcher window

Application	Add this text to client.properties file:
Alarm Monitor	**`workspace.icon.alarmMonitor= c:/myPath/myIcon.gif`**
Event Monitor	**`workspace.icon.eventMonitor= c:/myPath/myIcon.gif`**
Video Viewer	**`workspace.icon.cctvMonitor= c:/myPath/myIcon.gif`**
Graphic Viewer	**`workspace.icon.graphicViewer= c:/myPath/myIcon.gif`**
Main Viewer	**`workspace.icon.mainViewer= c:/myPath/myIcon.gif`**
Graphic Editor	**`workspace.icon.graphicEditor= c:/myPath/myIcon.gif`**
Symbol Editor	**`workspace.icon.symbolEditor= c:/myPath/myIcon.gif`**
Web Report Viewer	**`workspace.icon.webReportViewer= c:/myPath/myIcon.gif`**

Adding External Applications

There are sample lines in the properties file are commented out so they are not used. Uncomment the lines in the file and edit them to add external applications to the Facility Commander Launcher window.

Figure 273. Notepad application added to Launcher window

➤ **To add external applications to the Launcher window, follow these steps:**

1. On the Facility Commander client system, open the `client.properties` file using a text editor such as Notepad.
2. Edit three lines to add the executable, icon, and tooltip for each application. The information includes:
   - directory path of application executable
   - directory path of icon graphic
   - tooltip text

   This path must point to an existing and valid file. All path separators must use a forward slash “/” instead of a back slash “\”.

   The path includes a number (N), which indicates the icon position on the Applications toolbar.

   Also, make sure the icon is the correct size to fit on the toolbar. The maximum size is 32 x 32 pixels.

   The format is:

   `workspace.user_application.N.exe=`

   `workspace.user_application.N.icon=`

   `workspace.user_application.N.tooltip=`

Sample Entry:

The text below represents what should be entered if you want to add an application such as Notepad to the Launcher window. (This change adds the Notepad icon to the first position on the Applications toolbar.)

```
workspace.user_application.1.exe=c:/winnt/system32/
notepad.exe
workspace.user_application.1.icon=c:/sample.gif
workspace.user_application.1.tooltip=Notepad
```

3. Save the changes and close the text editor when you are finished.

Verifying Computer Host Name

Facility Commander servers, remote media servers, and client workstations all have host names, which are used to identify the system to the network.

Windows 2000

➤ **To verify the host name, follow these steps:**

1. Right-click **My Computer** on the desktop.
2. Select **Properties** from the shortcut menu.
3. Select the **Network Identification** tab. The computer host name is listed on this page.

Linux/AIX

To verify the host name, do this:

1. Open a terminal window and type the host name command:

   ```
   hostname
   ```

Changing the Host Name or IP Address

If you are installing Facility Commander on a new system, or a system that is already configured in your network, the server's host name may need to be changed.

On a new system, only a change on the Facility Commander server is required. Refer to the following sections:

- *Linux Operating System*
- AIX Operating System on page 404
- Windows Operating System on page 404

On an existing system, changes are required on the following systems:

- *Facility Commander Server*
- Facility Commander Clients on page 404
- Picture Perfect Server on page 404

Use the checklist in Table 67 to change the host name:

Table 67. Change Host Name Checklist

Facility Commander Server	
✔	Disable client encryption. Refer to *Changing the Client Encryption* on page 405 for instructions to enable or disable encryption between the Facility Commander server and the client applications.
✔	Change the host name on the Facility Commander server. Refer to *Changing the Host Name on Server Record* on page 405 for more information.
✔	Change the operating system host name. Refer to the following sections for the appropriate operating system.
Linux Operating System	
✔	Run the **`chhostlinux.sh`** script located in the following directory: **`/var/FacilityCommanderServer/server/webapps/Merlin/WEB-INF/classes/resources`**
✔	Select the database you are using and enter the new host name and IP address. Enter the same IP address if it is not changing.

Table 67. Change Host Name Checklist (Continued)

AIX Operating System	
✔	Run the **`chhostaix.sh`** script located in the following directory: **`/var/FacilityCommanderServer/server/webapps/Merlin/WEB-INF/classes/resources`**
✔	Select the database you are using and enter the new host name and IP address. Enter the same IP address if it is not changing.
Windows Operating System	
✔	Edit the system configuration file. Refer to *Editing the System Configuration File on Server* on page 406 for more information.
✔	Edit the SSL file. Refer to *Editing the SSL File on Server* on page 407 for more information.
✔	Change computer name in System Properties. Refer to *Changing the Computer Name on Server* on page 408 for more information.
✔	Change server name in SQL Server. Refer to *Changing the Server Name in SQL Server* on page 409 for more information.
Facility Commander Clients	
✔	Edit the host file. This step is only necessary if the customer is *not* using domain name service (DNS) server. Refer to *Editing the Host File on a Client System* on page 410 for more information.
✔	Edit the client properties file. *Editing the Client Properties File on a Client System* on page 411.
✔	Delete existing security certificates.
✔	Enable client encryption. Refer to *Changing the Client Encryption* on page 405 for instructions to enable encryption.
Picture Perfect Server	
✔	Edit the configuration file. Refer to *Editing the Picture Perfect Configuration File* on page 411 for more information.
✔	Recreate SSL certificates. Refer to *Picture Perfect External Interface Installation Guide* for more information.
✔	Restart the Picture Perfect system for the changes to take effect.

Changing the Client Encryption

This is required only if you have SSL enabled.

➤ **To change the encryption settings, follow these steps:**

2. Using the web browser, select **System Administration**, and then **System Parameters**. The Configure System Parameters page displays.
   - To enable encryption, select the **Enable Encryption With Clients** check box.
   - To disable encryption, clear the **Enable Encryption With Clients** check box.
3. Click **Submit**.

Changing the Host Name on Server Record

➤ **To change the host name, follow these steps:**

1. Select **System Administration**, and then **Facility Commander Servers**. The Configure Facility Commander Servers page displays.
2. Locate the Facility Commander server's tag name. Click the tag name to display the configuration information for the selected server.
3. Use the **Host Name** field to enter the new host name for this server. The host name is case sensitive.
4. Click **Submit**.

Editing the System Configuration File on Server

Required when changing the host name on a Facility Commander server with a Windows operating system.

➤ **To edit the system configuration file, follow these steps:**

1. Locate the SystemConfig.xml file, which is stored in: **`/var/FacilityCommanderServer/server/webapps/Merlin/WEB-INF/classes/resources`**
2. Create a backup copy of the SystemConfig.xml file.
3. Open the original file using a text editor, such as Notepad. The file should look similar to Figure 274.

Figure 274. Sample System Configuration file

4. Locate the line of text containing the host name. Replace the host name with the new host name.
5. Save the file and close the text editor.

Editing the SSL File on Server

Required when changing the host name on a Facility Commander server with a Windows operating system.

➤ **To edit the SSL file, follow these steps:**

1. Locate the SSL.bat file, which is stored in: **`/var/FacilityCommanderServer/server/webapps/Merlin/WEB-INF/classes/resources/certificates`**
2. Create a backup copy of the SSL.bat file.
3. Open the original file using a text editor, such as Notepad. The file should look similar to Figure 275.

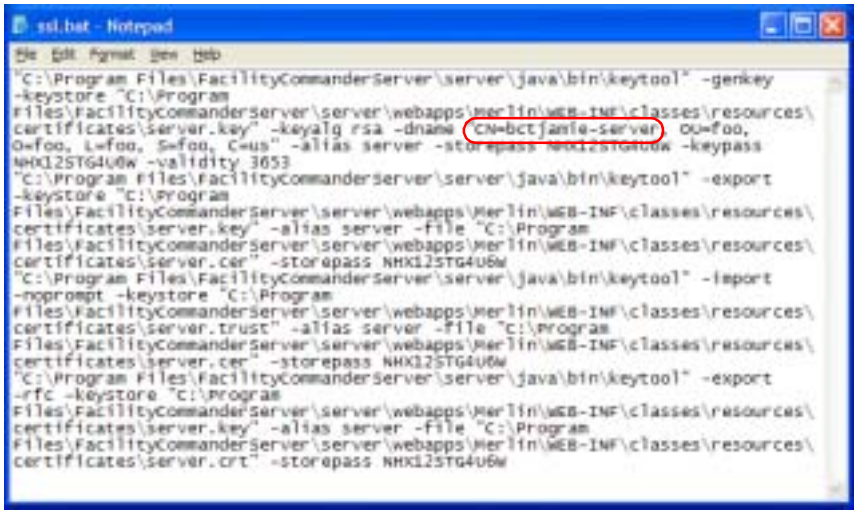


Figure 275. Sample SSL file

4. Locate the line of text containing the host name. Replace the host name with the new host name.
5. Save the file and close the text editor.

Changing the Computer Name on Server

Required when changing the host name on a Facility Commander server with a Windows operating system.

To change the computer name on the Facility Commander server, follow these steps:

1. Right-click the **My Computer** icon on the desktop.
2. Select **Properties** from the shortcut menu. The System Properties window displays.
3. Select the **Network Identification** tab.
4. Click **Properties** and the **Identification Changes** window as shown in Figure 276 displays.

Figure 276. Identification Changes window

5. In the **Computer name** field, enter the new name of the Facility Commander server. Use a maximum of 15 characters with no spaces.
6. Click **OK** to close the Identification Changes window.
7. Click **OK** to close the System Properties window.
8. A message displays asking if you want to reboot the computer. Click **Yes**.

Changing the Server Name in SQL Server

Required when changing the host name on a Facility Commander server with a Windows operating system.

➤ **To change the server name in SLQ Server, follow these steps:**

1. On the taskbar, click the **Start** button, and then select **Programs**, **Microsoft SQL Server**, and then **Query Analyzer**. The Connect to SQL Server window displays as shown in Figure 279.

Figure 277. Connect to SQL Server window

2. If the system administrator (sa) login account has a password, enter the password in the **Password** field. You do not need to change any other settings. Click **OK**.
3. The SQL Query Analyzer window displays as shown in Figure 278. Verify **master** displays in the database field. If it does not display, use the drop-down list to select the master database.

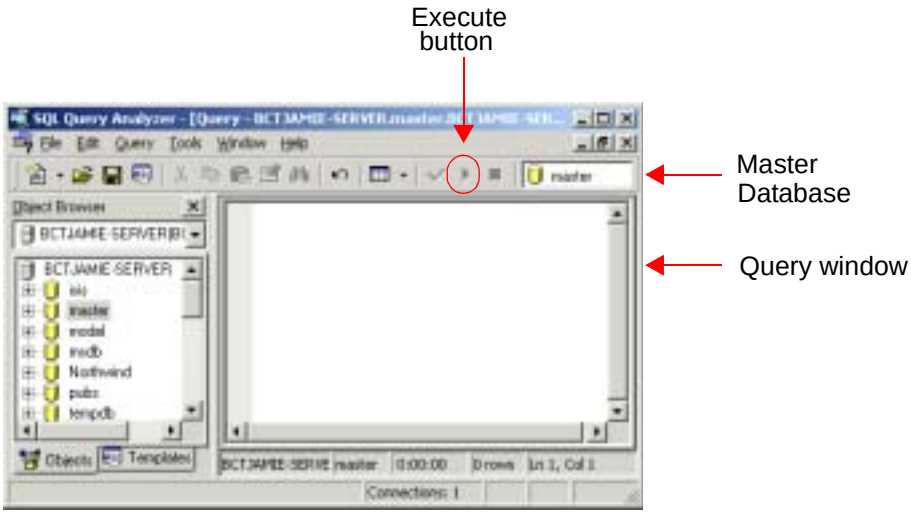


Figure 278. SQL Query Analyzer

4. In the Query window, type the following commands:

   `spdropserver (original server name), droplogins`

5. Click **Execute**. The bottom portion of the Query window pane displays the query results.

6. In the Query window, type the following commands:

   `spaddserver (new server name), LOCAL`

   The new server name must be typed in capital letters.

7. Click **Execute**. The bottom portion of the Query window pane displays the query results.
8. Close the SQL Query Analyzer window. Stop SQL Server and reboot the system. Refer to *Stopping the SQL Server* for further instructions.

Stopping the SQL Server

➤ **To stop SQL Server, follow these steps:**

1. On the taskbar, click the **Start** button, and then select **Programs**, **Microsoft SQL Server**, and then **Service Manager**. The SQL Service Manager window shown in Figure 279 displays.

Figure 279. SQL Server Service Manager window

2. Select **Stop** to stop the SQL Server service. This message displays: **Are you sure you want to STOP the SQL Server service on "hostname".**
3. Click **Yes**.
4. Close the SQL Service Manager window.
5. Reboot the computer.

Editing the Host File on a Client System

Required only if the customer is not using domain name server (DNS).

➤ **To change the host name, follow these steps:**

1. On the taskbar, click the **Start** button, and then select **Run**. The Run window displays.
2. Enter the following path:
   `\winnt\system32\drivers\etc`
3. Click **OK**.

4. Create a backup copy of the Host file.
5. Open the original file using a text editor, such as Notepad.
6. Locate the line of text with the host name. Replace the host name with the new host name.
7. Save the file and close the text editor.

Editing the Client Properties File on a Client System

➤ **To edit the client properties, follow these steps:**

1. On the taskbar, click the **Start** button, and then select **Run**. The Run window displays.
2. Enter the following path:
   `\Program Files\FacilityCommanderClient\resources`

   This is the default directory, unless a different directory was selected during the installation process.
3. Click **OK**.
4. Create a backup copy of the **`client.properties`** file.
5. Open the original file using a text editor, such as Notepad.
6. Locate the following line:
   `hostURL=http://host_name:8085/Merlin/servlet/net.casi.app.AppHttpServlet`
7. Replace “host_name” with the host name you want to use.
8. Save the file and close the text editor.

Editing the Picture Perfect Configuration File

➤ **To update the Facility Commander Server host name on the Picture Perfect system, follow these steps:**

1. Login as root and open a new terminal window.
2. Navigate to this directory:
   `/cas/db/text`
3. Create a backup copy of the eifevtmgr.cfg file.
4. Open the original file using the “vi” text editor.
5. Locate the following line:
   `http://host_name/Merlin/servlet/net.casi.AppHttpServlet`
6. Change the host name to the new host name.
7. Save the file and close the text editor.

This completes the procedure for changing the host name.

Enabling SSL Encryption for Picture Perfect

This section describes how to configure SSL support between the Picture Perfect server and the Facility Commander server. Using SSL enables a secure communication channel between these two systems.

The steps in this section are very technical and should only be performed by an IT Network Administrator who is knowledgeable about SSL.

The following commands apply to a Windows Facility Commander server and a Linux Picture Perfect server. Because your system configuration may be different., ask your Network Administrator who will know how to execute these commands on your system.

To enable SSL encryption, follow the steps listed inTable 68:

Table 68. Overview of SSL Instructions for Picture Perfect

	Procedures
✔	Copy the Facility Commander Certificate to Picture Perfect. Refer to: • *Copying File from Facility Commander* on page 413. • *Windows* on page 413. • *Linux and AIX* on page 413. • *FTP the File to Picture Perfect* on page 413.
✔	Move the Facility Commander Certificate to `/cas/db/text`. Refer to page 414.
✔	Generate Picture Perfect Key file. Refer to page 414.
✔	Generate the Picture Perfect Certificate Request from the Picture Perfect Key. Refer to page 415.
✔	Generate the Picture Perfect Signed Certificate. Refer to page 415.
✔	Generate the Picture Perfect PEM file. Refer to page 416.
✔	Update the EIF Event Manager Configuration file to enable SSL. Refer to page 416.
✔	Update the EIF Request Manager Configuration file. Refer to page 418
✔	Copy the certificate to the Facility Commander Server. Refer to page 420.
✔	Add the Picture Perfect Certificate. Refer to page 421.
✔	Enable the SSL communication between Picture Perfect and Facility Commander. Refer to page 422.

The server certificate on the Facility Commander system is used by the Picture Perfect SSL library. The following commands use FTP to transfer the certificate, **server.cer**, in binary mode from a Windows server to Picture Perfect.

Copying File from Facility Commander

The **server.cer** file is located in the certificates directory under the Facility Commander web application as shown below. These directories are the default installation paths, which may not be the same if a different path was chosen during Facility Commander installation.

- ### Windows

The file is located in the following directory:

```
C:\Program Files\FacilityCommanderServer
\server\webapps\Merlin\WEB-INF\classes
\resources\certificates
```

- ### Linux and AIX

The file is located in the following directory:

```
/var/FacilityCommanderServer/server/webapps/Merlin/
WEB-INF/classes/resources/certificates
```

- ### FTP the File to Picture Perfect

Copy the server.cer file and follow these instructions to connect to the remote Picture Perfect system.

```
c:> cd “\Program

Files\FacilityCommanderServer\server\webapps\Merlin\WE

B-INF\classes\resources\certificates”

c:> ftp pphost

Connected to pphost.na.ilxi.net.

220 pphost FTP server (Version wu-2.6.1-20) ready.

Name (pphost:install): install

Password: <install's password>

230 User install logged in.

Remote system type is UNIX.

Using binary mode to transfer files.

ftp> bin

200 Type set to I.

ftp> put server.cer

ftp> quit
```

Moving File to Picture Perfect

Move the Facility Commander Certificate to `/cas/db/text`. These commands describe logging in to the Picture Perfect system as “install” and then becoming “root” to copy the file.

```
c:> telnet pphost
Trying 3.18.148.3...
Connected to pphost.na.ilxi.net.
Escape character is '^]'.
Red Hat Linux release 7.2 (Enigma)
Kernel 2.4.9-31 on an i686
login: install
Password: <install's password>
Last login: Wed Dec 18 15:06:20 from bctrenegade
$ su
Password: <root's password>
# cp server.cer /cas/db/text/
```

Generating Picture Perfect Key File

Use these commands to produce a key file, which will be used to create the Picture Perfect certificate. You should be in the `/cas/db/text` directory when the `openssl` command is run. You are required to supply your own password (PEM pass phrase) for the key file. You will also use this password later in the configuration.

```
# cd /cas/db/text
# openssl genrsa -des3 -out picture.key 512/1024
Generating RSA private key, 512 bit long modulus
.........++++++++++++
.............++++++++++++
e is 65537 (0x10001)
Enter PEM pass phrase: <password>
Verifying password - Enter PEM pass phrase: <password>
```

Generating Picture Perfect Certificate Request

The next step is to generate a Picture Perfect certificate request from the Picture Perfect key.

Use the `openssl` command to generate the certificate request used by the Facility Commander server. You are required to supply the password used from the previous **`openssl`** command. The command prompts for several fields from the certificate.

The important field during this activity is the `Common Name` field. This must be the host name of the Picture Perfect system. If this is not correct, then the Facility Commander will not be able to use the proper certificate when Picture Perfect attempts to communicate.

```
# openssl req -new -key picture.key –out picture.csr
Using configuration from /usr/share/ssl/openssl.cnf
Enter PEM pass phrase: <password>
You are about to be asked to enter information that will be
incorporated into your certificate request.
What you are about to enter is what is called a Distinguished
Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value.
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:US
US
State or Province Name (full name) [Some-State]:FL
FL
Locality Name (eg, city) []:Boca
Boca
Organization Name (eg, company) [Internet Widgits Pty Ltd]:CASI
CASI
Organizational Unit Name (eg, section) []:eng
eng
Common Name (eg, your name or your server's hostname) []:pphost
pphost
Email Address []:fc@casi-rusco.com
casi-rusco.com
Please enter the following 'extra' attributes to be sent with your
certificate request
A challenge password []:

An optional company name []:
```

Generating Picture Perfect Signed Certificate

The following `openssl` command creates a signed certificate file. You will be prompted for the password used in the previous commands.

 # openssl req -x509 -key picture.key –in picture.csr -out picture.crt

Using the configuration from **/usr/share/ssl/openssl.cnf**, enter PEM pass phrase: <**password**>

Generating Picture Perfect PEM File

The following command creates the PEM file that will be used by the Facility Commander system.

 # cat picture.key picture.crt > picture.pem

Updating EIF Event Manager Configuration File

The following set of commands uses **vi** to modify the **eifevtmgr.cfg** file to configure Picture Perfect to use SSL with Facility Commander. You should make a copy of the configuration file in case you have to restore the previous version.

 # cp eifevtmgr.cfg eifevtmgr.cfg.bak

The following properties need to be configured correctly to support SSL: URL, PORT, RANDOM, CERTIFICATE, SSL_PASSWORD.

- The URL is modified to use the https protocol.
- The non-secure PORT, 8085, is commented out, and the secure PORT is uncommented to use 8443.
- The RANDOM and CERTIFICATE properties are not commented to use the values from the examples.
- The SSL_PASSWORD is the same password used to generate the Picture Perfect keys. The following shows the original and the modified copy of the configuration file.

Table 69. EIF Event Manager Configuration File

Original File (SSL Enabled)	Modified File (SSL Enabled)
#	#
# Copyright (C) 2002 GE Interlogix	# Copyright (C) 2002 GE Interlogix
# All Rights Reserved.	# All Rights Reserved.
#	#
# eifevtmgr.cfg	# eifevtmgr.cfg
#	#
# @(#) eifevtmgr.cfg 1.0 12/12/02	# @(#) eifevtmgr.cfg 1.0 12/12/02
#	#
# Supported Property Examples	# Supported Property Examples
#	#
# URL=http://hostname/facilitycommander/ servletnet.casi.app.AppHttpServlet	# URL=http://hostname/facilitycommander/ servletnet.casi.app.AppHttpServlet
# PORT=8085	# PORT=8085
# Default SSL port	# Default SSL port
# PORT=8443	# PORT=8443
# KEEP_ALIVE=FALSE	# KEEP_ALIVE=FALSE
# MESSAGE_TRACE=TRUE	# MESSAGE_TRACE=TRUE
# RESEND_BUFFER_SIZE=256	# RESEND_BUFFER_SIZE=256
# RANDOM=/cas/db/text/random.pem	# RANDOM=/cas/db/text/random.pem
# CERTIFICATE=/cas/db/text/server.cer	# CERTIFICATE=/cas/db/text/server.cer
#	#
# URL=http://bctrenegade/FacilityCommander/ servletnet.casi.app.AppHttpServlet	URL=https://bctrenegade/FacilityCommander/ servletnet.casi.app.AppHttpServlet
# PORT=8085	#PORT=8085
# SSL Default Port	# SSL Default Port
# PORT=8443	PORT=8443
KEEP_ALIVE=TRUE	KEEP_ALIVE=TRUE
# KEEP_ALIVE=FALSE	# KEEP_ALIVE=FALSE
# RANDOM=/cas/db/text/random.pem	RANDOM=/cas/db/text/random.pem
# CERTIFICATE=/cas/db/text/server.cer	CERTIFICATE=/cas/db/text/server.cer
# MESSAGE_TRACE=TRUE	# MESSAGE_TRACE=TRUE
# RESEND_BUFFER_SIZE=256	# RESEND_BUFFER_SIZE=256
	SSL_PASSWORD=password

Updating EIF Request Manager Configuration File

The following set of commands uses `vi` to modify the **`eifreqmgr.cfg`** file to configure Picture Perfect to use SSL with Facility Commander. You should make a copy of the configuration file in case you have to revert to the previous version.

```
# cp eifreqmgr.cfg eifreqmgr.cfg.bak
```

The following properties need to be configured correctly to support SSL: PROTOCOL, RANDOM, KEYFILE, SSL_PASSWORD.

- The non-secure protocol is commented out, and the secure protocol is uncommented to use HTTPS.
- The SSL_PASSWORD is the same password used to generate the Picture Perfect keys.
- The RANDOM and KEYFILE properties are uncommented to use the values from the examples.

Using the **`cat`** command, you can view the output of a modified configuration file.

Table 70. EIF Request Manager Configuration File

Original File (SSL Disabled)	Modified File (SSL Enabled)
#	#
# Copyright (C) 2002 GE Interlogix	# Copyright (C) 2002 GE Interlogix
# All Rights Reserved.	# All Rights Reserved.
#	#
# eifreqmgr.cfg	# eifreqmgr.cfg
#	#
# @(#) eifreqmgr.cfg 1.0 12/12/02	# @(#) eifreqmgr.cfg 1.0 12/12/02
#	#
# Supported Property Examples	# Supported Property Examples
#	#
# Non-SSL connection	# Non-SSL connection
# PROTOCOL=HTTP	# PROTOCOL=HTTP
# SSL connection	# SSL connection
# PROTOCOL=HTTPS	# PROTOCOL=HTTPS
# PORT=8088	# PORT=8088
# KEEP_ALIVE=TRUE	# KEEP_ALIVE=TRUE
# RANDOM=/cas/db/text/random.pem	# RANDOM=/cas/db/text/random.pem
# KEYFILE=/cas/db/text/picture.pem	# KEYFILE=/cas/db/text/picture.pem
# SESSION_TIMEOUT=10	# SESSION_TIMEOUT=10
# MESSAGE_TRACE=TRUE	# MESSAGE_TRACE=TRUE
#	#
PROTOCOL=HTTP	PROTOCOL=HTTPS
PORT=8088	PORT=8088
KEEP_ALIVE=TRUE	KEEP_ALIVE=TRUE
# RANDOM=/cas/db/text/random.pem	RANDOM=/cas/db/text/random.pem
# KEYFILE=/cas/db/text/picture.pem	KEYFILE=/cas/db/text/picture.pem
	SSL_PASSWORD=password

Copying Certificate to Facility Commander Server

Once you have created and configured the necessary files, you should exit the telnet session to return to the Facility Commander system.

The commands are:

```
# exit

$ exit

Connection closed by foreign host.
```

On the Facility Commander system, navigate to the Facility Commander web applications directory, and then to the Certificates directory. Use the **hostname** command to verify the machine is the correct host system. Use the **pwd** command to verify the directory structure.

Use the **ftp** command to connect to the Picture Perfect system and to transfer the **picture.crt** file created in the previous steps. The file is transferred in binary mode.

```
c:> cd "/Program Files/Facility CommanderServer/
webapps/Merlin/WEB-INF/classes/resources/certificates"
c:> ftp pphost
Connected to pphost.na.ilxi.net.
220 pphost FTP server (Version wu-2.6.1-20) ready.
Name (pphost:install): install
Password: <install's password>
230 User install logged in.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> bin
200 Type set to I.
ftp> cd /cas/db/text
ftp> get picture.crt
ftp> quit
```

Adding Picture Perfect Certificate

The **keytool** command should be in the path. The **keytool** command adds the certificate created in Picture Perfect to the server's trusted keystore file.

You are asked to identify the **server.trust** file password, which is generated during the Facility Commander installation. The password can be found by viewing the contents of **ssl.bat** file (Windows) or the **ssl.sh** file (Linux/AIX).

Examine the contents of the file to locate the - **storepass** parameter, which is a randomly generated 10-character string (**-storepass TKXQWPLSRN**) and is also the password you need to provide at the keytool password prompt. You are prompted to trust the certificate.

```
c:> keytool -import -keystore server.trust -alias
picture -file picture.crt
Enter keystore password: <password>
Owner: EMAILADDRESS=fc@casi-rusco.com, CN=pphost,
OU=eng, O=CASI,
L=Boca, ST=FL, C=US
Issuer: EMAILADDRESS=fc@casi-rusco.com, CN=pphost,
OU=eng, O=CASI,
L=Boca, ST=FL, C=US
Serial number: 0
Valid from: Wed Dec 18 15:13:39 EST 2002 until: Fri Jan
17 15:13:39
EST 2003
Certificate fingerprints:
MD5: 8F:06:F8:3D:48:4C:59:EF:6D:2E:E5:04:6D:7B:DD:4C
SHA1:
E8:60:F8:C1:85:90:5F:CF:9B:B9:16:2B:72:53:E9:5D:81:A6:
97:70
Trust this certificate? [no]: yes
Certificate was added to keystore
```

Enabling SSL Communication on Facility Commander

To enable SSL communication between the Picture Perfect and Facility Commander systems, open the web browser and log on to Facility Commander.

➤ **To enable SSL communication, follow these steps:**

1. Select **System Administration** and **Access Control Systems**. The Access Control Systems page displays.
2. Select the Picture Perfect system to edit. The Configure Access Control System page displays.
3. Select the **Advanced** tab.
4. Select the **Enable Encryption with Access Control System** check box.
5. Click **Submit**.
6. Restart the Picture Perfect system, which will allow the Picture Perfect system to communicate with Facility Commander using SSL encryption.

Enabling SSL Encryption for Secure Perfect

This section describes how to configure SSL support between the Secure Perfect server and the Facility Commander server. SSL enables a secure communication channel between these two systems.

The steps in this section are very technical and should be performed by an IT network administrator who is knowledgeable about SSL encryption. The commands apply to Windows Facility Commander and Secure Perfect servers. Because your system configuration may be different, the network administrator will know how to execute the commands on the system.

Secure Perfect SSL Certificate Creation

1. Make sure that the Secure Perfect and Facility Commander servers are completely installed and communicating successfully without SSL encryption enabled.
2. Stop the Facility Commander server.
3. On the PC where the Facility Commander Secure Perfect Interface is installed, perform the following steps:
   a. Open a command window
   b. Set the current directory to the resources folder of the Secure Perfect Interface software using the commands:

```
c:
cd \
cd “Program Files\Facility Commander
Interface\resources”
```

   c. Execute the script `makecert.bat` to create the certificate.
   d. When you are prompted for a password, enter your Secure Perfect API password.
   e. When the script terminates, close the command window. The script will create the file `fcapi.cer`.
   f. Activate the Facility Commander Secure Perfect Interface GUI using the GE icon in the toolbox.
      - Click **Administrator**, **Connection**, **SSL**, and then **ON**.
      - Click **Administrator** then **Facility Commander Server** and change the FC port to 8443.
4. On the PC where the Facility Commander Server is installed, perform the following steps:

a. Copy the `fcapi.cer` file created in step 3 above to the Facility Commander Server certificates directory.

   For a Facility Commander Server running on the AIX or Linux operating system, use FTP to copy the file. Remember to set your FTP transfer mode to **`binary`**.

   For Windows the certificates directory is (typically installed in `C:\Program Files`) :

   `…\FacilityCommanderServer\server\webapps\Merlin\WEB-INF\classes\resources\certificates`

   For AIX or Linux the certificates directory is:

   `/var/FacilityCommanderServer/server/webapps/Merlin/WEB-INF/classes/resources/certificates`

b. Open a command window, navigate to the certificates directory and execute the appropriate script.
   - For AIX execute the script `sp_api_aix.sh`
   - For Linux execute the script `sp_api_linux.sh`
   - For Windows execute the script `sp_api_win.bat`

c. c. Restart the Facility Commander Server

Multiple Secure Perfect SSL Connections

If the system configuration has more than one Secure Perfect server, the certificates created in step 3 above must be renamed to `fcapi_<hostname>.cer` where <hostname> is the host name of the Secure Perfect machine.

Before executing the script specified in step 4b:

- Make a copy of the script
- Change the certificate file name from `fcapi.cer` to `fcapi_<hostname>.cer`
- Change the alias parameter from `fcapi` to `fcapi_<hostname>` where <hostname> is the host name of the Secure Perfect machine

There must be a Facility Commander Secure Perfect Interface program installed on each Secure Perfect machine that will be communicating with Facility Commander. Repeat the steps above for each Secure Perfect server machine.

Appendix A. Edit Configuration Files for Informix Backup to Disk

This section describes the steps needed to modify the configuration files, which allows you to backup the database to a disk file. Read *Backup/ Restore Informix and Oracle Databases* on page 367 before proceeding.

Once you edit these files to change the output to disk, the backup utility will not write to tape because the output destination has been changed from tape to disk.

For instructions, refer to the following sections:

- *Editing the Backup Utility Configuration File* on page 427
- *Editing the Informix Configuration File* on page 428
- *Scheduling the Backup Utility* on page 429

Configuration Files

Table 71. Configuration files and default values

Configuration File	File Name and Parameters
General Backup: Refer to *Editing the Backup Utility Configuration File* on page 427	
Edit the Facility Commander Backup Utility configuration file to change the parameters, which include the location of log files and the number of log files retained	File: **`/etc/BackupUtility/config`**
• Use to identify the location of log files. This parameter may changed depending on operating system, disk space, and more.	Parameter: **`LOG_DIR`** Default value: **`/var/log/BackupUtility`**
• Use to minimize the number of log files. This parameter minimizes the impact on free space on the partition containing the file backup logs. The backup utility retains a limited number of each log file type (full or Incremental). The default value can be scaled up or down to balance more history or more free space.	Parameter: **`NUMBER_OF_LOGS_RETAINED`** Default value: **`7`**
• Use to identify the tape device used for file backups. This is the default setting.	Parameter: **`BACKUP_DEVICE`** Default value: **`/dev/tape`** New value: **`/dev/disk`**
Database Backup: Refer to *Editing the Informix Configuration File* on page 428**.**	
Edit the Informix configuration file when you want to back up to disk instead of tape.	File: **`/usr/informix/etc/onconfig`** .
• Defines the device file associated with the tape drive to use for database backups. The default value is a link to the device file.	Parameter: **`TAPEDEV`** Default value: **`/dev/tape`** New value: **`/bud/BackupUtility/db_backup.cpio`**
• **AIX Only**. Change this parameter to the actual tape device name. AIX does not accept symbolic links to a tape device. The tape device name in the new value may be different.	Parameter: **`TAPEDEV`** Default value: **`/dev/tape`** New value: **`/dev/rmt0`**
Database Support Files Backup	
Use to Identify the list of directories to include in a file system backup. • The file should contain one entry per line. The entry should be the path to a directory or file to back up. • When an entry identifies a directory, the contents are recursively included in the backup. • The path may be relative to the root directory or absolute.	File: **`/etc/BackupUtility/backup_paths`**

Editing the Backup Utility Configuration File

➤ **To edit the Backup Utility configuration file, follow these steps:**

Use the instructions in Table 72 to edit the configuration file. The instructions use `vi` as the text editor, however, you can use any text editor installed on the system.

Table 72. Edit configuration file

Action	Type
Navigate to the directory.	**`cd /etc/BackupUtilty [Enter]`**
Open file with vi editor.	**`vi config [Enter]`**
Uncomment the line by removing the # symbol from this line.	**`#BACKUP_DEVICE=/dev/disk`**
- Move to this location.	**`/#BACK [Enter]`**
- Delete the # symbol.	**`x`**
- Exit editor and save changes.	**`[Esc]:x [Enter]`**
- View file to confirm changes.	**`cat config [Enter]`**

Editing the Informix Configuration File

➤ **To edit the Informix configuration file, follow these steps:**

Use the instructions in Table 72 to edit the configuration file. The instructions use `vi` as the text editor, however, you can use any text editor installed on the system.

Table 73. Edit configuration file

Action	Type
Navigate to the directory.	**`cd /usr/informix/etc [Enter]`**
Open file with vi editor.	**`vi onconfig [Enter]`**
Locate parameter.	Parameter: **`TAPEDEV`**
- Move to this location.	**`/dev/tape [Enter]`**
- Delete each character in the old parameter value, by typing “x” nine times to remove the previous entry.	**`xxxxxxxxx [Enter]`**
- Change to an input mode.	**`i`**
- Add new entry.	**`/bud/BackupUtility/db_backup.cpio`**
- Exit editor and save changes.	**`[Esc]:x [Enter]`**
View file to confirm changes.	**`cat onconfig [Enter]`**

Scheduling the Backup Utility

The backup utility can be launched by setting the task to run on a regular schedule or by manually running the task.

Create a Cron Task

➤ **To run the task on a schedule, follow these steps:**

1. Use the vi text editor to edit the configuration file. Type:
   `crontab -e [Enter]`
2. Type: **`i`** to enter the input mode of the text editor.
3. Use the arrow keys to position the cursor at the end of the last line displayed. Press: **`[Enter]`** to create a new line**`.`**
4. Type:
   `30 2 * * * /usr/BackupUtility/BackupUtility B`

   This line represents the command used to schedule this task at 2:30 am each day. The variables are: minute, hour, day of month, month, day of week, and command. Use an asterisk (*) to indicate all days or months.
   Exit the editor and save the changes. Type:
   `[Esc]:x [Enter]`
5. View the scheduled tasks. Type:
   `crontab -l [Enter]`

Launch the Script Manually

➤ **To run the task manually, follow these steps:**

1. Type:
   `cd /usr/BackupUtility [Enter]`
2. Type:
   `sh BackupUtility [Enter]`

Appendix B. Troubleshooting Information

This section provides trouble-shooting information for problems that may be not be resolved by consulting the user interface error message table. The table will be updated from experience gained through debugging customer problems, mostly based on input received from Customer Support and the Facility Commander test team.

Table 74. List of Common Problems with Possible Causes and Solutions

Problem	Possible Causes and Solutions
Product Installation and Removal	
After product installation you cannot log in the first time as the default admin operator.	There are several possible causes of this problem. After performing the checks indicated in the steps below it may be necessary to change the logger configuration file to include more detailed information in the log file to help determine the cause of the problem. 1. Verify that you have created a valid license file (**`license.xml)`** and is has been placed in the correct location. The license file must specify the correct Operating System and Database product. 2. Verify the contents of the **`systemconfig.xml`** file and ensure that the database specification is correct. Verify all fields in the specification and that the host computer is accessible across the network.
After product removal some files still remain in the software directories	The removal procedure does not remove any files that were changed or added after the installation. This is standard for all Windows application removals. These files can be deleted if the product will not be reinstalled. If you are installing a later version of the product you may wish to save the license and database encryption key files.
Data Import	

Table 74. List of Common Problems with Possible Causes and Solutions

Problem	Possible Causes and Solutions
After importing data from a Picture Perfect system to a Facility Commander Server using the Informix database, the system has poor performance.	Performance problems, if they occur, will be observable when bringing up client applications with a navigation pane. The pane will take several seconds to populate. These problems typically only occur at the initial data import, where the database has few or no records. The database engine is using inaccurate table size information thereby causing poor query performance. You can observe query performance using the database query diagnostic screen. Note that the system automatically forces an update of the table size information once per day at 3:30 am. To manually force the update to achieve optimal performance immediately, follow the procedure below. For Informix: 1. Log in as the root user 2. Enter the command: **`cd /usr/Informix/bin/update`** 3. Enter the command: **`sh update`**
Importing data from a Picture Perfect system fails.	1. Verify proper network communications between the Facility Commander and Picture Perfect servers. Remember to verify that the DNS (Domain Name Server) is providing correct translation of host names to IP addresses when dynamic IP addressing is used on the network. For Unix systems verify the host name entries in the /etc/hosts file. 2. Verify that the Facility Commander license enables access to Picture Perfect systems and the database. Examine the log file to determine this. 3. Verify that the Facility Commander database record defining the Picture Perfect system has the correct user name and password to successfully log into the Picture Perfect system. Examine the log file to determine this. 4. Verify that the correct version of the eif (External Interface) package has been installed on the Picture Perfect system and that it has also been licensed on that system. Examine the log file on the Picture Perfect system to determine this. 5. Examine the Facility Commander server log file to see if a warning message is present indicating that there is a mismatch between the versions of the Facility Commander and Picture Perfect software. If this is the case, contact Customer Support for assistance. 6. If encryption has been enabled between the Facility Commander and Picture Perfect servers, verify that the SSL password settings are correct between the two systems.

Table 74. List of Common Problems with Possible Causes and Solutions

Problem	Possible Causes and Solutions
All Client Applications	
Client applications do not remember their size and position correctly.	This problem is usually caused by the ATI HydraVision™ software that has the “Application position memory” option turned on. Perform the steps below to turn this option off. 1. Right click on the ATI icon in the Windows task bar area to activate the ATI HydraVision Utility menu. 2. Select the “Desktop Manager Configuration” item from the “HydraVision” menu. 3. Clear the “Application position memory” check box and click **OK** to save the change
Alarm and Event Monitors	
Alarms and events from Picture Perfect are not received even though the data import was successful.	1. On the Picture Perfect server, verify that the URL address of the Facility Commander server is correct in the **`/cas/db/text/eifevtmgr.cfg`** file. Picture Perfect (tps) will need to be restarted after this file is changed. 2. Verify proper network communications between the Facility Commander and Picture Perfect servers. Remember to verify that the DNS (Domain Name Server) is providing correct translation of host names to IP addresses when dynamic IP addressing is used on the network. For Unix systems verify the host name entries in the **`/etc/hosts`** file.
Graphic Editor, Symbol Editor, and Graphic Viewer	
Graphic displays do not display on the list of candidates for deletion even though they exist on the server.	A graphic display cannot be deleted if another display links to it.
Graphic symbols or images do not display on the list of candidates for deletion even though they exist on the server.	Graphic symbols or images cannot be deleted as long as there is a graphic display that references them.
When adding an image to a symbol scheme, the workstation becomes very slow and the Windows Task Manager indicates almost 100% CPU usage.	There is a known problem in the Java Swing library with certain GIF file formats. If this problem occurs, the image file cannot be used. Choose or create another image file. The operator must log off and exit the Facility Commander application to correct the CPU usage problem.
When viewing a graphic display, the workstation becomes very slow and the Windows Task Manager indicates almost 100% CPU usage.	There is a known problem in the Java Swing library with certain GIF file formats. This problem usually occurs because a Graphic Display was created containing a GIF file with a format that is not supported, or it is using a Symbol that was created with a GIF file of a format that is not supported. The GIF image must be deleted from the Graphic Display or Symbol Editor. If this problem occurs, the image file cannot be used. Choose or create another image file. The operator must log off and exit the Facility Commander application to correct the CPU usage problem.

Table 74. List of Common Problems with Possible Causes and Solutions

Problem	Possible Causes and Solutions
Images imported from a non-mapped network drive display as blank in the Graphics Editor.	This is a known problem with the JLOOX™ Graphics Engine. A workaround is to map a drive letter to the network location and access the image from the mapped drive.
Video Viewer	
Video cannot be received from a digital video recorder (DVR) device.	There are several possible causes of the problem. Examine the log file to obtain additional information. 1. Verify that the host name or IP address specified for the DVR are correct and that communications with the device is working through the network. 2. Verify that the password you specified for the DVR is correct.
Languages and Translations	
The user interface does not present data in the correct language as specified by the operator locale.	This usually indicates that the language files were not installed. For the web browser interface the language files must be installed on the server. For the client user interface the language files must be installed on both the server and client workstation.
Administration Guide	
After selecting the Administration Guide link, the window displays a white background and the document does not display in the window.	This can happen the first time you try to view a PDF file. The Acrobat Reader program requires the user to accept the terms of the license the first time the application is used. Unfortunately, the window to accept the license is presented behind other windows and is hidden from view. Minimize the other windows until you see the license agreement window. Accept the license and click **OK**. The document then will display.

Appendix C. Error Messages

This section identifies error messages that may be displayed by the Facility Commander user interface. Error messages are identified by their 5-digit error number and include an explanation of possible causes and suggested solutions.

An integral component of the user interface is a standard web browser. Errors that may be encountered in accessing the server, or constructing a response screen to display, use the standard web browser reporting mechanism. They are first in the table and do not have error numbers associated with them. In some cases it may be necessary to examine the product log files to determine the cause of the failure.

If you are reading this document online, click on one of the error messages in the list below to view the causes and actions.

Table 75. Error messages, numbers, and page number

Error #	Messages	Page #
	The page cannot be displayed	page 440
	Internal server error	page 441
00001	Exceeded licensed quantity: capacity is <number>, <number> in use, desired change is <number>.	page 441
00002	Cannot release license resource: capacity is <number>, <number> in use, desired change is <number>.	page 441
00003	Licensing exception. No details specified.	page 441
00004	License has expired.	page 442
00005	Subsystem <name> is not a licensed resource.	page 442
00006	Invalid parameter specified in license request: subsystem is <name>, quantity is <number>.	page 442
00007	No license for subsystem <name>.	page 442
00008	Invalid license code.	page 442
00009	Error creating video player. Cause: <text>.	page 443
00010	Video clip not found.	page 443
00011	Video source not available.	page 443
00012	Digital recorder not available. Cause: <text>.	page 443
00013	Connection failed. Cause: <text>.	page 443
00014	Recorder initialization failed.	page 443

Table 75. Error messages, numbers, and page number (Continued)

Error #	Messages	Page #
00015	Requested operation not supported.	page 443
00016	Duplicate tag name, please try another.	page 444
00017	Error performing database operation.	page 444
00018	Invalid value for parameter.	page 444
00019	Error accessing the database, please try again.	page 444
00020	Deletion of predefined data not permitted.	page 445
00021	Requested data not found. Data may have been deleted by another operator.	page 445
00022	Attempt to save data failed.	page 445
00023	Attempt to update data failed. Data may have been updated or deleted by another operator.	page 446
00024	Attempt to delete data failed. Data may have been updated or deleted by another operator.	page 446
00025	Database read failed, number of columns incorrect.	page 446
00026	Database read failed, column data not of correct type.	page 447
00027	Database connection error.	page 447
00028	No database configured.	page 447
00029	Input value to validator is not correct type.	page 447
00030	Incorrect number of criteria provided to validator.	page 447
00031	Criterion value is not correct type.	page 447
00032	Enter value for required field.	page 448
00033	Duplicate user name, please try another.	page 448
00034	Text entered must be at least <number> characters.	page 448
00035	Text entered exceeds <number> characters.	page 448
00036	Enter a number from <number> to <number>.	page 448
00037	Enter true or false.	page 448
00038	Enter a number.	page 448
00039	Enter a valid URL such as http:// www.someDomain.com.	page 448

Table 75. Error messages, numbers, and page number (Continued)

Error #	Messages	Page #
00040	Enter a valid host name such as server3@domain.com.	page 449
00041	Enter a valid IP address such as 10.20.30.40.	page 449
00042	Enter a valid host name or IP address such as server3@domain.com or 10.20.30.40.	page 449
00043	Value must be blank for this option.	page 449
00044	Value must be entered for this option.	page 449
00045	Minimum value must be less than maximum value.	page 449
00046	Camera linking or unlinking failed. Camera assigned to another DVR input or DVR deleted by another operator.	page 450
00047	Preset number in use, please try another.	page 450
00048	Everything is imported for the facilities enabled in the window filter.	page 450
00049	Errors occurred. Move mouse pointer over X for details.	page 451
00050	Screen definition error. Request could not be performed.	page 451
00051	Operation cancelled by the operator.	page 451
00052	Operation not permitted.	page 451
00053	Duplicate browser error.	page 451
00054	Login timed out, please log in again.	page 451
00055	Login failed, server not available.	page 452
00056	Login not supported from unknown terminal.	page 452
00057	Specified user name not valid.	page 452
00058	Context information not available for specified user name.	page 453
00059	All workstation licenses in use.	page 453
00060	Login failed, workstation not specified or not defined.	page 453
00061	Password and confirmation password must match.	page 453
00062	Invalid user name or password, please try again.	page 454

Table 75. Error messages, numbers, and page number (Continued)

Error #	Messages	Page #
00063	Number of items per page not valid.	page 454
00064	Page number not valid.	page 454
00065	Page request not valid.	page 454
00066	This client is currently offline, request cannot be executed.	page 454
00067	Attempt to update facility membership failed.	page 455
00068	The window filter contains no facilities.	page 455
00069	The update to the window filter failed.	page 455
00070	Only one instance of <name> can be started at a time.	page 456
00071	Port number <number> specified in the client.properties file is already in use.	page 456
00072	Error in recording clip, no video available.	page 456
00073	Alarm instructions currently unavailable.	page 456
00074	No hyperlink location defined.	page 457
00075	Error in saving display.	page 457
00076	Error in getting display from server.	page 457
00077	Error in getting symbol schemes from server.	page 457
00078	Error in getting palettes from server.	page 458
00079	Display not found in server.	page 458
00080	file name cannot contain any of the following characters: \/:*?\"<>.	page 458
00081	Error in uploading display.	page 459
00082	Error in uploading symbol scheme.	page 459
00083	Uploading aborted! Files used in display not found.	page 459
00084	Error in removing resource.	page 460
00085	No domains found in system.	page 460
00086	Record delete failed due to dependency.	page 460
00087	Camera information not available. The camera may have been deleted by another operator.	page 461

Table 75. Error messages, numbers, and page number (Continued)

Error #	Messages	Page #
00088	Missing initial state icon.	page 461
00089	License key does not exist or is invalid.	page 461
00090	Selected DXF file name does not match the original name. Operation aborted!	page 462
00091	Error importing AutoCad DXF drawings. Operation aborted!	page 462
00092	Duplicate layer name {0} found. Operation aborted!	page 462
00093	AutoCad DXF layer name {0} cannot be renamed.	page 462
00094	Value is not within the range {0, number, integer} to {1, number, integer}.	page 462
00095	Enter a valid numeric range such as: 1-100 or 1-20;25;30-50.	page 462
00096	Range numbers must be in numeric sequence such as 1;5-50;60-70.	page 462
00097	Value must contain only numeric digits.	page 463
00098	Intercom extension or exchange number is already assigned to {0}.	page 463
00099	Camera and preset information has been refreshed on the Monitoring tab.	page 463
00100	Camera is not linked to a DVR.	page 463
00101	Intercom extension or exchange number length must not exceed {0, number, integer} digits.	page 463
00102	Selected alarms require response information.	page 463
00103	Alarm requires response information.	page 463
00104	Other field values are inconsistent with this value.	page 463
00105	Tag name may be in use or invalid. Please specify a different tag name.	page 464
00106	Switcher configuration file syntax error or model type incorrect.	page 464
00107	The input number is already in use for this area.	page 464
00108	The area number is already in use for this panel.	page 464
00109	Switcher configuration has already been imported.	page 465

Table 75. Error messages, numbers, and page number (Continued)

Error #	Messages	Page #
00110	Items cannot be imported. Name already exists.	page 465
00111	The bus address is already in use for this DVR. Please select another.	page 466
00112	Client version (<client-version>) not compatible with server version (<server-version>).	page 466

Table 76. List of error numbers, messages, causes, and actions

#	Message	Causes	Actions
	The page cannot be displayed	This message and the associated detailed information indicate that communications with the server were not successful or the operation timed out. Unsuccessful communications may be due to the server being down, a network communications problem or that the URL address for the server is not correct. Successful communication between the workstation and server requires the use of static IP addresses or an accessible DNS (domain name server) to perform the translation of host name to IP address. For Unix systems the **`/etc/`** hosts table may be used to provide the translation.	If this error occurred when attempting to log in, contact the System Administrator to ensure that the server is up, that communications from your workstation to the server are functioning properly, and that the URL address for the server is correct. Retry the login operation. If the error occurred while already logged in, click the **Back** button on the browser to return to the last valid screen and try another operation. If the problem persists, contact the System Administrator for assistance. The system log file should be examined for evidence of network failures or a software problem. If necessary, contact Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
	Internal server error	This message indicates a software problem has occurred or that the request made through the web browser interface is not synchronized with the current state of the operator's session. The latter problem can occur if the operator attempts to bypass the normal operations of the user interface or may indicate an attempted security breach.	Click the **Back** button on the browser to return to the last valid screen and try another operation. If the problem persists, contact the System Administrator for assistance. The system log file should be examined for evidence of an attempted security breach, operator bypassing of normal operations of the user interface or a software problem. If necessary contact Customer Support for assistance.
00001	Exceeded licensed quantity: capacity is <number>, <number> in use, desired change is <number>.	The operation requested by the operator required a license resource that was not available at the current time. The license resource required, how many license units are currently in use and how many license units were requested are shown in the message.	Reduce the number of active operator windows using the resource or increase the license capacity of the system.
00002	Cannot release license resource: capacity is <number>, <number> in use, desired change is <number>.	The operation requested by the operator attempted to release license resources not held by the operator's session. This could indicate a software problem or an attempted security breach.	The requested operation by the operator to release the license resources not held by the operator's session. This could indicate a software problem or an attempted security breach.
00003	Licensing exception. No details specified.	Indicates a software problem or an attempted security breach.	Examine the system log file to determine if any unauthorized network activity is present. If there is evidence of a software problem send the error message and corresponding information from the log file to Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00004	License has expired.	The operator's session was expired due to inactivity and the license required for the requested operation was released. The session timeout period is a system parameter with a default of 30 minutes but is changeable by the System Administrator.	The operator must log in again.
00005	Subsystem <name> is not a licensed resource.	Indicates a software problem or an attempted security breach.	Examine the system log file to determine if any unauthorized network activity is present. If there is evidence of a software problem send the error message and corresponding information from the log file to Customer Support for assistance.
00006	Invalid parameter specified in license request: subsystem is <name>, quantity is <number>.	Indicates a software problem or an attempted security breach.	Examine the system log file to determine if any unauthorized network activity is present. If there is evidence of a software problem send the error message and corresponding information from the log file to Customer Support for assistance.
00007	No license for subsystem <name>.	Indicates a software problem or an attempted security breach.	Examine the system log file to determine if any unauthorized network activity is present. If there is evidence of a software problem send the error message and corresponding information from the log file to Customer Support for assistance.
00008	Invalid license code.	Indicates a software problem or an attempted security breach.	Examine the system log file to determine if any unauthorized network activity is present. If there is evidence of a software problem send the error message and corresponding information from the log file to Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00009	Error creating video player. Cause: <text>.	The DVR could not be connected to. Also the video player data source classes for the specified protocol are not available.	Check that the DVR is turned on and recording. Verify on the DVR configuration screen that the correct model was selected. Also make sure that no other applications are connected to the DVR. Verify that the drivers for the requested protocol are installed on the client.
00010	Video clip not found.	The video token stored in the database was not found on the DVR. It's possible the video token was erased from the DVR or writing the token to the DVR failed.	If the video token was just written to the DVR it might not be available for playback yet, so retry playing the clip. Make sure the DVR is recording.
00011	Video source not available.	The camera was configured but not physically installed on DVR. Also see error message 00009.	Verify the camera configuration on the DVR.
00012	Digital recorder not available. Cause: <text>.	The DVR connection was not available.	The connection to the DVR was lost. Verify if the connection was lost. The System Administrator should determine if the DVR could be accessed across the network. Contact the network administrator for assistance.
00013	Connection failed. Cause: <text>.	A connection to the DVR could not be established.	Verify that the DVR configuration is correct. Also check that no other applications are connected to the DVR.
00014	Recorder initialization failed.	A connection to the DVR could not be established.	Verify that the DVR configuration is correct. Also check that no other applications are connected to the DVR.
00015	Requested operation not supported.	The software was requested to perform an operation that is not permitted. This message can be the result of an attempted security breach or a software problem.	Examine the system log file for evidence of an attempted security breach or a software problem and send the information to Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00016	Duplicate tag name, please try another.	The tag name specified by the operator is already in use for another item defined on the system. This error can also occur if a manual (command line) deletion of an item is made from a database table (strongly discouraged) but the corresponding entry in the tag_name table was not deleted.	The operator should specify a different tag name. When a manual deletion was performed, the system administrator should be contacted to delete the entry in the tag_name table.
00017	Error performing database operation.	The database operation requested by the operator failed, possibly due to a network problem that made the database inaccessible or a software problem.	The operator should try the operation again. If the problem persists, examine the log file for evidence of a network or a software problem and send the relevant information to Customer Support for assistance.
00018	Invalid value for parameter.	The database operation requested by the operator failed, possibly due to an inconsistency in the database or a software problem.	The operator should try the operation again. If the problem persists, examine the log file for evidence of a database inconsistency or a software problem and send the relevant information to Customer Support for assistance.
00019	Error accessing the database, please try again.	The database operation requested by the operator failed, most likely due to a network problem that made the database inaccessible or a software problem.	The operator should try the operation again. If the problem persists, examine the log file for evidence of a network or a software problem and send the relevant information to Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00020	Deletion of predefined data not permitted.	The operator attempted to delete an item from the database that cannot be deleted. The Facility Commander user interfaces prevent such deletion attempts so this error message may indicate an attempted security breach, an attempt to bypass normal operations of the user interface or a software problem.	The operator should not attempt to delete data where the delete icon has been disabled. If this message continues to occur, examine the log file for evidence of an attempted security breach or a software problem and send the relevant information to Customer Support for assistance.
00021	Requested data not found. Data may have been deleted by another operator.	The requested read operation failed, most likely due to a situation where another operator deleted an item that was required for the requested operation. This problem can occur when multiple operators with configuration delete permission are altering the system configuration in an uncoordinated manner. An example of this is where one operator is linking a camera to a DVR device while another operator is deleting the same camera.	Revisit the current screen to verify that the requested operation is still available. If on a list screen, use the appropriate entry in the navigation menu to refresh the list screen. You may observe that the record you were attempting to delete is no longer present. If on the DVR Link Camera screen, click on the Digital Video Recorders menu item, then click on the Link Cameras link of the specific DVR. You may observe that the camera you were attempting to link is no longer available. If this message continues to occur, examine the log file for evidence of uncoordinated changes to the system configuration or a software problem and send the relevant information to Customer Support for assistance.
00022	Attempt to save data failed.	The database save operation requested by the operator failed, possibly due to a network problem that made the database inaccessible, an inconsistency in the database or a software problem.	The operator should try the operation again. If the problem persists, examine the log file for evidence of a network problem, database inconsistency, or a software problem and send the relevant information to Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00023	Attempt to update data failed. Data may have been updated or deleted by another operator.	The requested updated operation failed, most likely due to a situation where another operator updated or deleted the same record. This problem can occur if two operators attempt to update the same item at the same time. The first update attempt will succeed and the second will fail with this error message. This error can also indicate a database inconsistency or a software problem.	Revisit the current screen to verify that the requested operation is still available after noting the changes that you had intended to make. If on a list screen, use the appropriate entry in the navigation menu to refresh the list screen. You may observe that the item you were attempting to edit is no longer present. If on an edit screen, click the **Cancel** button to return to the list screen. If the item is still present, you can select its tag name or description to re-edit it. You may observe another operator changed one or more of the values. Some of your intended changes may no longer be relevant. If the problem persists, examine the log file for evidence of a database inconsistency or a software problem and send the relevant information to Customer Support for assistance.
00024	Attempt to delete data failed. Data may have been updated or deleted by another operator.	The requested updated operation failed, most likely due to a situation where another operator deleted the same record. This problem can occur if two operators attempt to delete the same item at the same time. The first delete attempt will succeed and the second will fail with this error message. This error can also indicate a database inconsistency or a software problem.	Revisit the current list screen by clicking on the appropriate entry in the navigation menu to determine if the item you were attempting to delete still exists. If so, repeat the delete operation. If the problem persists, examine the log file for evidence of a database inconsistency or a software problem and send the relevant information to Customer Support for assistance.
00025	Database read failed, number of columns incorrect.	Indicates an inconsistency between a database table and the software, possibly due to a database corruption or software problem.	Provide this error message and the relevant information from the system log file to Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00026	Database read failed, column data not of correct type.	Indicates an inconsistency between a database table and the software, possibly due to a database corruption or software problem.	Provide this error message and the relevant information from the system log file to Customer Support for assistance.
00027	Database connection error.	The Facility Commander server could not connect to the database specified by the DatabaseServer element in the SystemConfig.xml file. The database name or URL address may be invalid or the database host may not be accessible through the network. The host containing the database may be down, disconnected from the network or the name server may not be providing translation of the host name to a valid IP address. For Unix systems verify that entries in the **`/etc/hosts`** file are correct.	The System Administrator should verify that the database URL is correct and the specified location is accessible through the network. Contact the local network Administrator for assistance.
00028	No database configured.	The systemConfig.xml file that defines the database location could not be found or did not have the correct format.	The System Administrator should verify the location and content of the file and correct as required and restore it from a backup if needed.
00029	Input value to validator is not correct type.	Indicates a software problem.	Provide this error message and the relevant information from the system log file to Customer Support for assistance.
00030	Incorrect number of criteria provided to validator.	Indicates a software problem.	Provide this error message and the relevant information from the system log file to Customer Support for assistance.
00031	Criterion value is not correct type.	Indicates a software problem.	Provide this error message and the relevant information from the system log file to Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00032	Enter value for required field.	When configuring a new or existing item the operator did not provide a value for a field where a value was required. This error message can also occur where a value of one field is dependent upon the value of another field.	The operator should specify a value for the field.
00033	Duplicate user name, please try another.	When in the process of creating a new or updating an existing operator record, a user name that is already in use by another operator record was entered.	The operator should enter a different user name.
00034	Text entered must be at least <number> characters.	The operator entered a value for the field that was too short in length (had too few characters). The minimum length required is provided in the error message.	Enter a value that has sufficient length.
00035	Text entered exceeds <number> characters.	The operator entered a value for the field that was too long in length (had too many characters). The maximum length permitted is provided in the error message.	Enter a value that does not exceed the maximum length.
00036	Enter a number from <number> to <number>.	The operator entered a value for a numeric quantity that was not valid. The error message specifies the range of valid values.	Enter a value within the specified range of valid values.
00037	Enter true or false.	The operator did not enter a value of true or false where one was required.	Enter the true or false.
00038	Enter a number.	The operator entered a non-numeric value where a numeric value was required.	Enter a numeric value.
00039	Enter a valid URL such as http:// www.someDomain.com.	The operator did not enter a valid URL (Uniform Resource Locator) address. A URL is a full path specification to an object on the network.	Enter a valid URL address. Contact the System Administrator for assistance in specifying an appropriate value.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00040	Enter a valid host name such as server3@domain.com.	The operator did not enter a valid host name for a device on the network.	Enter a valid host name. The host name is case-sensitive. Contact the System Administrator for assistance in specifying an appropriate value.
00041	Enter a valid IP address such as 10.20.30.40.	The operator did not enter a valid IP (Internet Protocol) address for a device on the network.	Enter a valid IP address. Contact the System Administrator for assistance in specifying an appropriate value.
00042	Enter a valid host name or IP address such as server3@domain.com or 10.20.30.40.	The operator did not enter a valid host name or IP (Internet Protocol) address for a device on the network.	Enter a valid host name or IP address. The host name is case-sensitive. Contact the System Administrator for assistance in specifying an appropriate value.
00043	Value must be blank for this option.	The operator specified a value for a field that must be blank (empty) based on the value specified for another field. Both fields are flagged with an error indicator and this error message.	Set the value for the field to blank or change the value of the other field.
00044	Value must be entered for this option.	The operator did not specify a value for a field where one was required, based on the value specified for another field. Both fields are flagged with an error indicator and this error message.	Enter a value for the field or change the value of the other field.
00045	Minimum value must be less than maximum value.	Indicates one or more incorrect entries in the configuration files that specify minimum and maximum values for data entered by the operator.	The minimum value specified for a field must be less than or equal to the maximum value specified. Examine the entries in the configuration files fieldValidations.xml and eventActionCommandValidations.xml and contact Customer Support for assistance if necessary. Customers and business partners should not alter these files without specific instructions from Customer Support.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00046	Camera linking or unlinking failed. Camera assigned to another DVR input or DVR deleted by another operator.	The system was unable to link the specified camera to the specified DVR. The most likely causes are that the camera was linked to another DVR, another operator deleted the DVR, multiple operators with configuration delete permission are making system configuration changes in an uncoordinated manner or the database has inconsistent data.	Click on the Digital Video Recorders menu item and observe if the DVR you are trying to link cameras to still exists. If it does, click on the Link Cameras link for the DVR and determine if the camera you were attempting to link is still available. If it is, retry the attempt to link the camera to the DVR. If this message continues to occur, examine the log file for evidence of uncoordinated changes to the system configuration, inconsistent data in the database or a software problem and send the relevant information to Customer Support for assistance.
00047	Preset number in use, please try another.	When configuring a new or updating an existing preset for a camera, the operator specified a preset number that is already in use by another preset defined for the camera.	Specify a preset number not in use for the camera. If necessary, click on the Cancel button to return you to the list screen where the currently defined preset numbers for the camera are shown.
00048	Everything is imported for the facilities enabled in the window filter.	No data was available for import when the operator clicked the Import button. The cause of the unavailability, if known, is displayed in the error message line. The most likely causes and actions to take are listed below.	1. All data was imported already - no further action is required. 2. Window filter had disabled facilities - enable the other facilities and retry the import operation. 3. Communications (network) error - retry the import operation. 4. License expired - log in again and retry the import operation.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00049	Errors occurred. Move mouse pointer over X for details.	There were two or more values entered by the operator that were not valid. This message is displayed in the error message line. The specific error messages are shown for each field in error.	Correct each error and retry the operation.
00050	Screen definition error. Request could not be performed.	The configuration file specifying the screen contents was not in the correct format.	Restore the listScreens.xml and editScreens.xml screen definition files from a backup. Customers and business partners should not alter these files without specific instructions from Customer Support.
00051	Operation cancelled by the operator.	The operator clicked the Cancel button to abort the edit operation.	None required. This is a routine message acknowledging the request.
00052	Operation not permitted.	An operation was attempted for which the operator does not have permission. The Facility Commander user interfaces do not offer operations that are not permitted. This message can occur if an operator attempts to circumvent normal operation of the user interfaces, or from an attempted security breach or from a software problem.	Examine the system log for evidence of operator attempts to circumvent normal operation of the user interfaces, an attempted security breach or a software problem and send the relevant information to Customer Support for assistance.
00053	Duplicate browser error.	The operator opened a second browser window using the New Window entry of the File menu. Secondary browser windows from the same log in are not supported.	Close the second browser window. To perform operations through two browser windows, launch a new instance of the browser and log in to establish an independent session. Note that this will use another web client license.
00054	Login timed out, please log in again.	The operator's session was expired due to inactivity and the client license was released. The session timeout period is a system parameter with a default of 30 minutes, which is changeable by the System Administrator.	The operator must log in again.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00055	Login failed, server not available.	The client software could not communicate with the Facility Commander server. The server may be down or a network problem may be preventing communication. The name server used by the client workstation may not be providing translation of the server host name to a valid IP address. For Unix systems verify that entries in the **`/etc/hosts`** file are correct. Also, the operator may be attempting to log into a Facility Commander 2.0 server using a client application that is an earlier version.	The System Administrator should verify that the server host name specified by the hostURL parameter in the client.properties file specifies the correct server host name. Verify the server is up and the server host is accessible through the network. Also, use the client log file to view the details of the error message. Contact the local network administrator for assistance.
00056	Login not supported from unknown terminal.	The operator attempted to log in from a non-workstation device. The system could not determine that the log in was attempted from a web browser or from the client Workspace application. This message could indicate that an operator is attempting log in from a non-qualified device or that a security breach is being attempted.	Attempt to contact the operator to verify that the device being logged in from is qualified for use. Examine the system log file to determine if log in attempts are being made from unauthorized sources indicating that a security breach is being attempted. If necessary, contact Customer Support for assistance.
00057	Specified user name not valid.	The user name entered by the operator has not been defined on the server. The operator may have mistyped the user name or a security breach may have been attempted.	Re-enter the user name and try to log in. Examine the system log file to determine if log in attempts are being made from unauthorized sources indicating that a security breach is being attempted. If necessary, contact Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00058	Context information not available for specified user name.	Indicates a database inconsistency or a software problem. An operator record was located for the operator that is attempting to log in, but the context specified in the operator record could not be located in the database.	Verify the presence of the context record in the database that is specified in the operator record. Try to recreate the context if it is missing. Examine the system log for evidence of database consistency error messages. If the problem persists send the relevant information to Customer Support for assistance.
00059	All workstation licenses in use.	All concurrent log-ins permitted by the license are in use.	Wait a few minutes and try to log in again. Idle log-ins will be terminated after their idle expiration period, freeing their licenses. Reduce the number of concurrent log-ins by asking operators to log off of workstations that they are not actively using. Increase concurrent login licenses.
00060	Login failed, workstation not specified or not defined.	The operator attempted to run the Java client user interface from a workstation that was not defined to the Facility Commander server. Workstations that may be used to run the Java client user interface must be defined on the Facility Commander server. The host name of the workstation where the Java client user interface was trying to log in from does not match the host name for any workstation defined on the Facility Commander server.	Notify the operator of which workstations may be used to run the Java client user interface software or define the workstation on the Facility Commander server. If dynamic IP addressing is being used on the network, the System Administrator should verify that the DNS (domain name server) is correctly translating the workstation host name. For Unix systems verify the host name translation entry in the **`/etc/hosts`** file.
00061	Password and confirmation password must match.	When configuring a new or updating an existing item, the value entered for the password confirmation did not match the value entered for the password. These values must match to ensure that the password entered is what the operator intended.	Re-enter the value for the password confirmation and click on the Submit button to save the changes.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00062	Invalid user name or password, please try again.	The specified user name and password did not match the information for any operators defined on the server.	Re-enter the user name or password in case you had mistyped the previous information and try to log in again. If the problem persists contact the System Administrator for assistance.
00063	Number of items per page not valid.	The number of items specified to be shown on list screens was not a valid value. The Facility Commander user interfaces limit the values that may be selected to a range of valid values. This error may indicate an attempt to bypass the normal user interface mechanisms, could be indicative of an attempted security breach or a software problem.	The operator should select the number of items per page from the select list provided on the list screen. If the problem persists, the System Administrator should examine the system log file for evidence of an attempted security breach or software problem and send the relevant information to Customer Support for assistance.
00064	Page number not valid.	The value entered in the box to the left of the Go button was not a number.	The operator should enter a valid numeric value within the range of the page numbers shown on the screen. If the problem persists, contact Customer Support for assistance.
00065	Page request not valid.	The value entered in the box to the left of the Go button was not within range of the available page numbers as shown on the screen.	The operator should enter a valid numeric value within the range of the page numbers shown on the screen. If the problem persists, contact Customer Support for assistance.
00066	This client is currently offline, request cannot be executed.	The Facility Commander client software cannot currently communicate with the server. The operator tried to perform an action that requires communication with the server. This can be caused either by the server being down, or due to a lost connection with the client PC.	If the color of the connection indicator in the lower right corner of the client application is red, this indicates a communication problem. First verify with the System Administrator that the server is up and running. If it is, then the problem may be with the client PC's network connection, or due to an incorrect hostURL entry in the client.properties file.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00067	Attempt to update facility membership failed.	The operator request to change the membership of a facility was not totally successful most likely due to a problem accessing the database or an inconsistency between database tables. Some of the requested changes may have been made but at least one change failed. The screen will be refreshed to show the current membership of the facility. The operator should examine the information to determine what changes did not occur.	Attempt to make the membership changes that previously failed. If the problem persists, contact the System Administrator to examine the system log file for evidence of database inconsistency or a software problem and send the relevant information to Customer Support for assistance.
00068	The window filter contains no facilities.	This message indicates that the context assigned to the operator does not include any facilities. This message will be displayed if an operator assigned a context without facilities views the window filter by clicking on the Window Filter entry of the navigation menu.	No action is required unless the operator believes that the context should contain access to one or more facilities. In this case the System Administrator should be contacted to verify the context assigned to the operator. If the context does include facilities then there may be a software problem or a database inconsistency. Examine the system log file for evidence of these problems and send the relevant information to Customer Support for assistance.
00069	The update to the window filter failed.	This message indicates that the operator request to change the facilities that are enabled in the window filter was not successful. This error message should not occur and is indicative of a software problem.	Examine the system log file for evidence of a software problem and send the relevant information to Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00070	Only one instance of <name> can be started at a time.	The operator tried to launch the Facility Commander client, but it is already running. This can also occur if the previous instance of the Facility Commander client aborted unexpectedly, leaving the network communication port allocated. A third possible cause is that another program running on the workstation is using the port number configured for the Facility Commander client.	Determine if an instance of the Facility Commander client is already running (check the Windows task bar to see if it is minimized) on the workstation. If the previous instance of client aborted unexpectedly, reboot the workstation to free up the port. If the problem persists, contact the System Administrator to change the value of the workspace.port_number parameter in the client.properties file to a port that is not in use by another program running on the workstation.
00071	Port number <number> specified in the client.properties file is already in use.	This message always appears together with message 00070 if the Facility Commander client can determine that the network port number is being used by another program.	Contact the System Administrator to change the value of the workspace.port_number parameter in the client.properties file to a port that is not in use another program running on the workstation.
00072	Error in recording clip, no video available.	The DVR was not in record mode or the connection was lost.	Verify that the DVR is recording and that a valid connection exists.
00073	Alarm instructions currently unavailable.	This message appears on the Alarm Response dialog in the Instructions field if the External Access Control System that is the source of the alarm (e.g. Picture Perfect) is currently offline.	Verify that the alarm has an Offline indicator displayed (a red “X”). This indicates that the external system that is the source for this alarm is currently offline. When the external system comes back online (when the red X is no longer displayed), bringing up the Alarm Response window again to display the alarm instructions.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00074	No hyperlink location defined.	This message may occur with the Graphic Viewer when a hyperlink symbol was added to the graphic display but was not linked to another graphic.	Notify the System Administrator that the graphic display contains a link that was not set. The System Administrator should run the Graphic Editor to set the hyperlink to an existing graphic display or should delete the hyperlink symbol.
00075	Error in saving display.	The file name may contain invalid characters.	Examine the client log file to determine which file names were invalid. Correct the file names and retry the save operation.
00076	Error in getting display from server.	The attempt to retrieve the specified graphic display file from the Facility Commander server failed. The server may be down or there may be network communication problems.	Contact the System Administrator to determine if the server is down or there are network communication problems. Retry the operation when the server is up and network communications have been restored. If the problem persists the System Administrator should examine the server log file and if necessary, contact Customer Support for assistance.
00077	Error in getting symbol schemes from server.	The attempt to retrieve the symbol files associated with the specified graphic display from the Facility Commander server failed. The server may be down or there may be network communication problems.	Contact the System Administrator to determine if the server is down or there are network communication problems. Retry the operation when the server is up and network communications have been restored. If the problem persists the System Administrator should examine the server log file and if necessary, contact Customer Support for assistance.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00078	Error in getting palettes from server.	The attempt to retrieve the symbol palette files associated with the specified graphic display from the Facility Commander server failed. The server may be down or there may be network communication problems.	Contact the System Administrator to determine if the server is down or there are network communication problems. Retry the operation when the server is up and network communications have been restored. If the problem persists the System Administrator should examine the server log file and if necessary, contact Customer Support for assistance.
00079	Display not found in server.	The attempt to retrieve the specified graphic display file from the Facility Commander server failed. This problem usually occurs when an operator logs in and the restored workspace preferences specify a graphic display that no longer exists on the Facility Commander server.	Contact the System Administrator to determine if the graphic display was deleted from the server. If it was, resave the workspace to remove the reference or ask the System Administrator to restore the graphic display on the server. If not, log out and log in again to see if the problem persists. If the problem reoccurs, the System Administrator should examine the server log file to seek other causes such as network communications problems.
00080	file name cannot contain any of the following characters: \/ :*?\"<>.	When saving a graphic display the operator entered one or more characters (of \/ :*?\"<>.) that are invalid for file names.	Attempt the save operation again after entering a name that does not contain any of the invalid characters.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00081	Error in uploading display.	This error can occur from many different causes as listed in the actions below. Examine the client or server log files as appropriate to determine the cause of the failure.	Retry the operation to see if the problem persists. 1. Files referenced by the graphic display are missing on the client. This can occur especially if graphics files such as images were referenced across a network and they are not accessible when the save operation is in progress. Files may also have been deleted manually from the workstation after the graphic display was created but before it was uploaded. - Examine the client log file to determine which files were missing or inaccessible and correct as appropriate. 2. Network communications error, Facility Commander server error, database error - Examine the system log file to determine which of these problems is the cause of the failure and correct as appropriate.
00082	Error in uploading symbol scheme.	This message indicates that network communications problem occurred when uploading a symbol file referenced by a graphic display that is being uploaded to the server.	Retry the operation. If the problem persists contact the System Administrator to examine the client and server log files to determine the problem.
00083	Uploading aborted! Files used in display not found.	Images or symbol files that are referenced by the graphic display were not found. This can occur if these files were referenced across the network and are not accessible at the current time or if referenced files on the workstation were manually deleted after the graphic display was created.	Examine the client log file to determine which files are missing or are not accessible. Restore the missing files and retry the operation.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00084	Error in removing resource.	This error can occur during a request to delete a symbol, image or graphic display from the server if the specified file cannot be deleted. The file may have been deleted by another operator, may have been manually set to read-only, or may be locked because it is in use by another program.	Determine if the file still exists on the server. If so, retry the operation. If the problem persists contact the System Administrator to determine why the file cannot be deleted.
00085	No domains found in system.	This message is displayed when in attempting to associate an item to a symbol on a graphic display, no items of the appropriate type are found using the current window filter. The window filter may specify a restricted set of facilities that do not contain any items of the appropriate type or no items of that type may exist in the database.	Examine the window filter and enable additional facilities to locate items of the appropriate type and retry the association operation. If the operator believes that items of the appropriate type do exists but are not being shown, it may indicate a database inconsistency or software problem. In this case the System Administrator should examine the server log file to determine the cause.
00086	Record delete failed due to dependency.	The operator request to delete an item could not be performed because other items are referencing the item to be deleted. The tag names of the referencing items are displayed when the mouse is placed over the X.	The operator must remove these references before the original item can be deleted.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00087	Camera information not available. The camera may have been deleted by another operator.	This message may occur when linking cameras to a DVR device through the Link Cameras screen. It will also occur if the same camera is linked to more than one input of the DVR. The screen will be redisplayed and the camera inputs where the link failed will be flagged with an X. The reason for the link failure is shown when the mouse is placed over the X.	Examine the list of available cameras and observes if the camera you tried to link is still available. The camera may have been deleted from the system or may have been assigned to another DVR device. If the camera is still available try the link operation again. If the problem persists it may indicate a database inconsistency or a software problem. Examine the system log file for evidence of a software problem and send the relevant information to Customer Support for assistance.
00088	Missing initial state icon.	The symbol file that the operator requested to upload to the server references an image file to display for the initial state of an item that could not be found. The image file for the initial state of an item is a required component of a symbol. This can occur if the image file was referenced across the network and is not accessible at the current time or if the image file was located on the workstation but was manually deleted after the symbol was created.	Restore the missing image file and retry the operation. If the problem persists contact the System Administrator to examine the client and server log files to determine the problem.
00089	License key does not exist or is invalid.	The license key file license.xml is not present in the correct location or was generated using a machine code from a different computer.	Verify that the license.xml file is present in the correct location (the installation path plus `/server/resoures`). Verify that the license key was generated using the correct machine code for the computer where the server software was installed. You should call Customer Support, provide the server machine code, and have them verify that the license code is correct.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00090	Selected DXF file name does not match the original name. Operation aborted!	Selected re-imported DXF file does not match the original DXF file name.	Select the same DXF file name to re-import.
00091	Error importing AutoCad DXF drawings. Operation aborted!	The DXF file may not be saved in version 12 format, or the DXF file is corrupted or not in DXF format.	Make sure the DXF file is in DXF file format with version 12.
00092	Duplicate layer name {0} found. Operation aborted!	Duplicate layer name is found when merging DXF layers.	Change the duplicate layer name from the layer setting dialog and re-import again. If that layer name is a DXF layer, you need to change the original layer name in AutoCad and delete the object to re-import it again.
00093	AutoCad DXF layer name {0} cannot be renamed.	DXF layer name cannot be changed for later updating and merging purpose.	You have to rename the layer in the AutoCad and re-import in again in order to change the layer name.
00094	Value is not within the range {0, number, integer} to {1, number, integer}.	The operator entered a value that was not within the specified range of numbers.	Enter a number within the specified range.
00095	Enter a valid numeric range such as: 1-100 or 1-20;25;30-50.	The operator entered an invalid numeric range specification.	The range specification entered by the operator may not be valid for a number of reasons. The information entered must follow these rules: • No spaces are allowed when entering a range of numbers. • Semicolons (;) must be used to separate number range specifications. • The number range specifications must be in increasing numerical order.
00096	Range numbers must be in numeric sequence such as 1;5-50;60-70.	The numeric range entered by the operator was not in an increasing numeric sequence.	Each number or range must be greater than the previous number or range. The entire sequence of numbers and ranges must be in increasing numerical order.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00097	Value must contain only numeric digits.	The operator entered a sequence of characters that contained digits other than 0 through 9.	Enter characters that consist only of the digits 0 through 9.
00098	Intercom extension or exchange number is already assigned to {0}.	The intercom extension or exchange number entered by the operator is already assigned to another intercom station or exchange.	Specify a different extension or exchange number. The extension and exchange number must be unique for an intercom exchange and all of the stations connected to it. Note that the intercom stations connected to different exchanges can have the same extension number.
00099	Camera and preset information has been refreshed on the Monitoring tab.	This informational message alerts the operator that Facility Commander has changed camera and preset information on the Monitoring tab of the Configure Intercom Station page.	Return to the Monitoring tab to specify a preset for the camera before submitting the record.
00100	Camera is not linked to a DVR.	The operator selected a camera in the Video Viewer navigation pane that is not linked to a DVR in the database.	Using the browser client, go to the DVR list page and click Link Cameras. Link the camera to the proper input on that page.
00101	Intercom extension or exchange number length must not exceed {0, number, integer} digits.	The operator entered an intercom extension or exchange number that was too large.	Enter a value whose length does not exceed the specified value.
00102	Selected alarms require response information.	One of the selected alarms requires response text before it can be removed.	Enter the response text into the response text window.
00103	Alarm requires response information.	The alarm requires response text before it can be removed.	Enter the response text into the response text window.
00104	Other field values are inconsistent with this value.	The operator entered values for other fields that are inconsistent with the value for this field. The other fields will be flagged with their own error indicators and those error messages will indicate the type of inconsistency.	Review all the fields marked with an error indicator and determine a consistent set of values for those fields. After making the changes, click the **Submit** button to save the data.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00105	Tag name may be in use or invalid. Please specify a different tag name.	The tag name entered for the graphic display is not valid. The tag name may be in use by another item or may be too long.	Enter a different tag name and click **Upload** to save the graphic display. Tag names must be at least two characters.
00106	Switcher configuration file syntax error or model type incorrect.	An error occurred when attempting to read the information in the specified analog switcher configuration file. The syntax of the file may be incorrect or the model specified in the file may not be the same model of the switcher record you are attempting to import the data for.	Verify that the model of the switcher record you are attempting to import the data for matches the model in the file. Verify the syntax of the file.
00107	The input number is already in use for this area.	The operator entered an input number on the intrusion input configuration screen that has already been used by another intrusion input assigned to the same intrusion area.	Choose a different input number not already in use by existing intrusion inputs for the specified intrusion area.
00108	The area number is already in use for this panel.	The operator entered an area number on the intrusion configuration screen that has already been used by another intrusion area assigned to the same intrusion panel.	Choose a different area number not already in use by existing intrusion areas for the specified intrusion panel.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00109	Switcher configuration has already been imported.	This message can occur when you attempt to import an analog switcher configuration file. The operator already imported this switcher configuration with the option to automatically create cameras and monitors and is now attempting to perform this operation a second time for the same analog switcher. The created cameras and monitors have their tag names constructed based on the tag name of the analog switcher. If these items have already been created, trying to create them a second time is not permitted because duplicate tag names are not allowed. If the operator deletes that analog switcher with exactly the same tag name as the one that was deleted and attempts to import a configuration file, the same situation occurs and the cameras and monitors cannot be created because they already exist.	The operator can manually select the appropriate cameras and monitors on the analog switcher inputs and outputs page because they already exist. The operator can delete the cameras and monitors and retry the import operation.
00110	Items cannot be imported. Name already exists.	When importing items such as facilities from an external access control system, one or more of those facilities had a description that matches an existing item in Facility Commander. The description of an imported item becomes the tag name of the corresponding Facility Commander item. Facility Commander items have a unique tag name (not case-sensitive). All name conflicts will be shown on the import page.	The operator can continue with the import operation to import the items that do not have a name conflict. Change the description of the item on the external access control system so that it does not conflict with an existing item on the Facility Commander system and perform the import operation again.

Table 76. List of error numbers, messages, causes, and actions (Continued)

#	Message	Causes	Actions
00111	The bus address is already in use for this DVR. Please select another.	On the camera configuration page, the operator specified a bus address for a PTZ camera that is already in use by another PTZ camera on the specified PTZ controller.	Select a different bus address for the PTZ camera.
00112	Client version (<client-version>) not compatible with server version (<server-version>).	The operator is running a Facility Commander client application that is not at the same version level as the server. This can happen if a version 1.x client is used with a version 2.x server or vice versa.	The Facility Commander client application must be at the same version level as the server. Either log into a different server that is at the same version level or upgrade the client to a later version.

Appendix D. Facility Permissions

Use facility permissions to grant or deny permissions to monitor and control items, such as locking and unlocking door access points or control PTZ cameras, view live or recorded video, acknowledge alarms and more.

There are two types of permissions granted — enabled or not enabled, and none, view, update, create, and delete permissions.

- The ability to lock and unlock and access points is either enabled or not enabled.
- The second type grants permission based on which category is selected. For example, if an operator is granted permission to create new records, than permission is also granted to view and update records, but not delete records.

Refer to *Facility Permissions* on page 109 for more information about configuring permissions. To review the specific permissions granted when using the predefined permissions, refer to the following sections:

Permission Level	Refer to:
All Facility Permissions	Table 77
Entry Level Guard Facility Permissions	Table 78 on page 470
Guard Supervisor Facility Permissions	Table 79 on page 472
Intermediate Guard Facility Permissions	Table 80 on page 474
Update Configuration Facility Permissions	Table 81 on page 476
View Configuration Facility Permissions	Table 82 on page 478

If you are reading this document online, click one of the links above to navigate directly to the page.

All Facility Permissions

Table 77. All Facility Permissions

	Enabled	None	View	Update	Create	Delete
Controls						
Lock/Unlock Access Points	Yes					
Activate/Reset Digital Outputs	Yes					

Table 77. All Facility Permissions

	Enabled	None	View	Update	Create	Delete
Control PTZ Cameras	Yes					
Enable/Disable Digital Input Monitoring	Yes					
Enable/Disable Logical Input Monitoring	Yes					
Monitors						
Purge Alarms	Yes					
Acknowledge/Remove Alarms	Yes					
View Live Video	Yes					
View Recorded Video	Yes					
Setup						
Operators		—	Yes	Yes	Yes	Yes
Contexts		—	Yes	Yes	Yes	Yes
System Permissions		—	Yes	Yes	Yes	Yes
Facility Permissions		—	Yes	Yes	Yes	Yes
Facilities		—	Yes	Yes	Yes	Yes
Facility Commander Servers		—	Yes	Yes	Yes	Yes
Workstations		—	Yes	Yes	Yes	Yes
Access Control Systems		—	Yes	Yes	Yes	Yes
Devices						
Access Points		—	Yes	Yes	Yes	Yes
Digital Inputs		—	Yes	Yes	Yes	Yes
Logical Inputs		—	Yes	Yes	Yes	Yes
Digital Inputs		—	Yes	Yes	Yes	Yes
Digital Video Recorders		—	Yes	Yes	Yes	Yes
Cameras		—	Yes	Yes	Yes	Yes
Intercom Exchanges		—	Yes	Yes	Yes	Yes

Table 77. All Facility Permissions

	Enabled	None	View	Update	Create	Delete
Intercom Stations		—	Yes	Yes	Yes	Yes
Analog Video Switcher		—	Yes	Yes	Yes	Yes
Intrusion Panels		—	Yes	Yes	Yes	Yes
Intrusion Areas		—	Yes	Yes	Yes	Yes
Intrusion Inputs		—	Yes	Yes	Yes	Yes

Entry Level Guard Facility Permissions

Table 78. Entry Level Guard Facility Permissions

	Enabled	None	View	Update	Create	Delete
Controls						
Lock/Unlock Access Points	Yes					
Activate/Reset Digital Outputs	No					
Control PTZ Cameras	Yes					
Enable/Disable Digital Input Monitoring	No					
Enable/Disable Logical Input Monitoring	No					
Monitors						
Purge Alarms	No					
Acknowledge/Remove Alarms	Yes					
View Live Video	Yes					
View Recorded Video	Yes					
Setup						
Operators		Yes	No	No	No	No
Contexts		Yes	No	No	No	No
System Permissions		Yes	No	No	No	No
Facility Permissions		Yes	No	No	No	No
Facilities		Yes	No	No	No	No
Facility Commander Servers		Yes	No	No	No	No
Workstations		Yes	No	No	No	No
Access Control Systems		Yes	No	No	No	No

Table 78. Entry Level Guard Facility Permissions

	Enabled	None	View	Update	Create	Delete
Devices						
Access Points		Yes	No	No	No	No
Digital Inputs		Yes	No	No	No	No
Logical Inputs		Yes	No	No	No	No
Digital Video Recorders		Yes	No	No	No	No
Cameras		Yes	No	No	No	No
Intercom Exchanges		Yes	No	No	No	No
Intercom Stations		Yes	No	No	No	No
Analog Video Switcher		Yes	No	No	No	No
Intrusion Panels		Yes	No	No	No	No
Intrusion Areas		Yes	No	No	No	No
Intrusion Inputs		Yes	No	No	No	No

Guard Supervisor Facility Permissions

Table 79. Guard Supervisor Facility Permissions

	Enabled	None	View	Update	Create	Delete
Controls						
Lock/Unlock Access Points	Yes					
Activate/Reset Digital Outputs	Yes					
Control PTZ Cameras	Yes					
Enable/Disable Digital Input Monitoring	Yes					
Enable/Disable Logical Input Monitoring	Yes					
Monitors						
Purge Alarms	Yes					
Remove Alarms	Yes					
Acknowledge Alarms	Yes					
View Live Video	Yes					
View Recorded Video	Yes					
Setup						
Operators	—	No	No	No	No	No
Contexts	—	No	No	No	No	No
System Permissions	—	No	No	No	No	No
Facility Permissions	—	No	No	No	No	No
Facilities	—	No	No	No	No	No
Facility Commander Servers	—	No	No	No	No	No
Workstations	—	No	No	No	No	No
Access Control Systems	—	No	No	No	No	No

Table 79. Guard Supervisor Facility Permissions

	Enabled	None	View	Update	Create	Delete
Devices						
Access Points		No	No	No	No	No
Digital Inputs		No	No	No	No	No
Logical Inputs		No	No	No	No	No
Digital Video Recorders		No	No	No	No	No
Cameras		No	No	No	No	No
Intercom Exchanges		No	No	No	No	No
Intercom Stations		No	No	No	No	No
Analog Video Switcher		No	No	No	No	No
Intrusion Panels		No	No	No	No	No
Intrusion Areas		No	No	No	No	No
Intrusion Inputs		No	No	No	No	No

Intermediate Guard Facility Permissions

Table 80. Intermediate Guard Facility Permissions

	Enabled	None	View	Update	Create	Delete
Controls						
Lock/Unlock Access Points	Yes					
Activate/Reset Digital Outputs	Yes					
Control PTZ Cameras	Yes					
Enable/Disable Digital Input Monitoring	No					
Enable/Disable Logical Input Monitoring	No					
Monitors						
Purge Alarms	No					
Remove Alarms	Yes					
Acknowledge Alarms	Yes					
View Live Video	Yes					
View Recorded Video	Yes					
Setup						
Operators		Yes	No	No	No	No
Contexts		Yes	No	No	No	No
System Permissions		Yes	No	No	No	No
Facility Permissions		Yes	No	No	No	No
Facilities		Yes	No	No	No	No
Facility Commander Servers		Yes	No	No	No	No
Workstations		Yes	No	No	No	No
Access Control Systems		Yes	No	No	No	No

Table 80. Intermediate Guard Facility Permissions

	Enabled	None	View	Update	Create	Delete
Devices						
Access Points		Yes	No	No	No	No
Digital Inputs		Yes	No	No	No	No
Logical Inputs		Yes	No	No	No	No
Digital Video Recorders		Yes	No	No	No	No
Cameras		Yes	No	No	No	No
Intercom Exchanges		Yes	No	No	No	No
Intercom Stations		Yes	No	No	No	No
Analog Video Switcher		Yes	No	No	No	No
Intrusion Panels		Yes	No	No	No	No
Intrusion Areas		Yes	No	No	No	No
Intrusion Inputs		Yes	No	No	No	No

Update Configuration Facility Permissions

Table 81. Update Configuration Facility Permissions

	Enabled	None	View	Update	Create	Delete
Controls						
Lock/Unlock Access Points	No					
Activate/Reset Digital Outputs	No					
Control PTZ Cameras	No					
Enable/Disable Digital Input Monitoring	No					
Enable/Disable Logical Input Monitoring	No					
Monitors						
Purge Alarms	No					
Remove Alarms	No					
Acknowledge Alarms	No					
View Live Video	No					
View Recorded Video	No					
Setup						
Operators		No	Yes	Yes	No	No
Contexts		No	Yes	Yes	No	No
System Permissions		No	Yes	Yes	No	No
Facility Permissions		No	Yes	Yes	No	No
Facilities		No	Yes	Yes	No	No
Facility Commander Servers		No	Yes	Yes	No	No
Workstations		No	Yes	Yes	No	No
Access Control Systems		No	Yes	Yes	No	No

Table 81. Update Configuration Facility Permissions

	Enabled	None	View	Update	Create	Delete
Devices						
Access Points		No	Yes	Yes	No	No
Digital Inputs		No	Yes	Yes	No	No
Logical Inputs		No	Yes	Yes	No	No
Digital Video Recorders		No	Yes	Yes	No	No
Cameras		No	Yes	Yes	No	No
Intercom Exchanges		No	Yes	Yes	No	No
Intercom Stations		No	Yes	Yes	No	No
Analog Video Switcher		No	Yes	Yes	No	No
Intrusion Panels		No	Yes	Yes	No	No
Intrusion Areas		No	Yes	Yes	No	No
Intrusion Inputs		No	Yes	Yes	No	No

View Configuration Facility Permissions

Table 82. View Configuration Facility Permissions

	Enabled	None	View	Update	Create	Delete
Controls						
Lock/Unlock Access Points	No					
Activate/Reset Digital Outputs	No					
Control PTZ Cameras	No					
Enable/Disable Digital Input Monitoring	No					
Enable/Disable Logical Input Monitoring	No					
Monitors						
Purge Alarms	No					
Remove Alarms	No					
Acknowledge Alarms	No					
View Live Video	No					
View Recorded Video	No					
Setup						
Operators		—	Yes	No	No	No
Contexts		—	Yes	No	No	No
System Permissions		—	Yes	No	No	No
Facility Permissions		—	Yes	No	No	No
Facilities		—	Yes	No	No	No
Facility Commander Servers		—	Yes	No	No	No
Workstations		—	Yes	No	No	No
Access Control Systems		—	Yes	No	No	No

Table 82. View Configuration Facility Permissions

	Enabled	None	View	Update	Create	Delete
Devices						
Access Points		—	Yes	No	No	No
Digital Inputs		—	Yes	No	No	No
Logical Inputs		—	Yes	No	No	No
Digital Video Recorders		—	Yes	No	No	No
Cameras		—	Yes	No	No	No
Intercom Exchanges		—	Yes	No	No	No
Intercom Stations		—	Yes	No	No	No
Analog Video Switcher		—	Yes	No	No	No
Intrusion Panels		—	Yes	No	No	No
Intrusion Areas		—	Yes	No	No	No
Intrusion Inputs		—	Yes	No	No	No

Appendix E. System Permissions

Use system permissions to grant or deny permissions to system applications, such as the Alarm Monitor, or access points to item that are not assigned to facilities. Examples of items that are not in facilities include: alarm colors, alarm instructions, and alarm profiles.

Refer to *System Permissions* on page 115 for more information about configuring permissions. To review the specific permissions granted when using the predefined permissions, refer to the following sections:

Permission Level	Refer to:
All System Permissions	Table 83
Entry Level Guard System Permissions	Table 84 on page 483
Guard Supervisor System Permissions	Table 85 on page 484
Intermediate Guard System Permissions	Table 86 on page 485

If you are reading this document online, click one of the links above to navigate directly to the page.

All System Permissions

Grants all permissions including view, update, create, and delete for system level items. This also grants permission to use applications, such as the Alarm Monitor or permission to configure event action mapping definitions.

Table 83. All System Permissions

	Enabled	None	View	Update	Create	Delete
Applications						
Alarm Monitor	Yes					
Event Monitor	Yes					
Video Viewer	Yes					
Graphic Viewer	Yes					
Report Generator	Yes					
Editors						
Event Action Mappings		—	Yes	Yes	Yes	Yes

Table 83. All System Permissions

	Enabled	None	View	Update	Create	Delete
Alarm Instructions		—	Yes	Yes	Yes	Yes
Alarm Profiles		—	Yes	Yes	Yes	Yes
Graphic Editor		—	Yes	Yes	Yes	Yes
Symbol Editor		—	Yes	Yes	Yes	Yes
Operations						
Change Window Filter	Yes					
Change Locale	Yes					
Change Video Popup Options	Yes					
Shutdown System	Yes					
Run/Configure Diagnostics	Yes					
Alarm Colors	Yes					
System Parameters	Yes					

Entry Level Guard System Permissions

Table 84. Entry Level Guard System Permissions

	Enabled	None	View	Update	Create	Delete
Applications						
Alarm Monitor	Yes					
Event Monitor	Yes					
Video Viewer	Yes					
Graphic Viewer	Yes					
Report Generator	No					
Editors						
Event Action Mappings		Yes	No	No	No	No
Alarm Instructions		Yes	No	No	No	No
Alarm Profiles		Yes	No	No	No	No
Graphic Editor		Yes	No	No	No	No
Symbol Editor		Yes	No	No	No	No
Operations						
Change Window Filter	No					
Change Locale	No					
Shutdown System	No					
Run/Configure Diagnostics	No					
Alarm Colors	No					
System Parameters	No					

Guard Supervisor System Permissions

Table 85. Guard Supervisor System Permissions

	Enabled	None	View	Update	Create	Delete
Applications						
Alarm Monitor	Yes					
Event Monitor	Yes					
Video Viewer	Yes					
Graphic Viewer	Yes					
Report Generator	Yes					
Editors						
Event Action Mappings		Yes	No	No	No	No
Alarm Instructions		Yes	No	No	No	No
Alarm Profiles		Yes	No	No	No	No
Graphic Editor		Yes	No	No	No	No
Symbol Editor		Yes	No	No	No	No
Operations						
Change Window Filter	Yes					
Change Locale	Yes					
Shutdown System	No					
Run/Configure Diagnostics	No					
Alarm Colors	No					
System Parameters	No					

Intermediate Guard System Permissions

Table 86. Intermediate Guard System Permissions

	Enabled	None	View	Update	Create	Delete
Applications						
Alarm Monitor	Yes					
Event Monitor	Yes					
Video Viewer	Yes					
Graphic Viewer	Yes					
Report Generator	No					
Editors						
Event Action Mappings		Yes	No	No	No	No
Alarm Instructions		Yes	No	No	No	No
Alarm Profiles		Yes	No	No	No	No
Graphic Editor		Yes	No	No	No	No
Symbol Editor		Yes	No	No	No	No
Operations						
Change Window Filter	Yes					
Change Locale	Yes					
Shutdown System	No					
Run/Configure Diagnostics	No					
Alarm Colors	No					
System Parameters	No					

Appendix E. Demos

Facility Commander provides online animations that demonstrate how to configure the system and use its features.

Table 1. Online Demonstrations

Demonstrations
Add a Camera Device
Add a CCTV Monitor
Add a Workstation
Add an Analog Video Switcher
Add an Intercom Exchange
Add an Intercom Master Station
Add an Intrusion Input
Add Context Definition
Add Text to a Graphic Display
Adding Symbols to a Graphic Display
Change the Alarm Monitor Column Options
Change the Alarm Monitor View
Configure Camera Pre-set Positions
Configure an Intrusion Panel Device
Configure Digital Video Recorders (DVRs)
Configure Event Monitor Options
Configure Input and Output Devices for Analog Switchers
Create a Facility and Associate Items
Create a Symbol Layer Using Graphics Editor
Create a Symbol Scheme
Create Alarm Instructions
Create Alarm Profiles
Create an Event Action Mapping Item
Create Facility Permissions

Table 1. Online Demonstrations

Demonstrations
Edit the Alarm Colors on the Alarm Monitor
Edit the System Parameters
Import Digital Input Devices
Import Digital Output Devices
Import Door Access Points
Import Facilities
Import Logical Input Devices
Log In to Facility Commander

Customer Survey

Title of this book: *Facility Commander Administration Guide*

My overall rating of this book:

- ❒ Excellent
- ❒ Very good
- ❒ Good
- ❒ Satisfactory
- ❒ Fair
- ❒ Poor

What I liked most about this book:

_____

_____

_____

_____

_____

_____

_____

What I would change, add, delete, etc. in future editions of this book:

_____

_____

_____

_____

_____

Please return this form to:

Attn: Technical Writing
GE Infrastructure - Security
791 Park of Commerce Blvd.
Boca Raton, FL 33487

or e-mail your comments to:
bctdocs@ge.com

Please let us know if you discover any defects in our software. We value your feedback and want to ensure that our software meets your expectations.

Software Defect Report

Date:_____

First Name:_____ **Last Name:**_____

Company Name:_____

Phone:_____-_____ **e-mail:**_____

CASI-RUSCO Business Partner:_____

Contact:_____

Application Software:_____ **Version:**_____

HW Model:_____**OS Version:**_____

Hardware Platform:

- ❒ **Intel PC**
- ❒ **RS/6000**

Operating System:

- ❒ **Windows**
- ❒ **UnixWare**
- ❒ **AIX**
- ❒ **Browser**

Severity:

- ❒ **Cosmetic**
- ❒ **Undesirable**
- ❒ **Application Crash**
- ❒ **System Crash**
- ❒ **Data Loss**

Replication:

- ❒ **Every Time**
- ❒ **Frequent**
- ❒ **Intermittent**
- ❒ **One Occurrence Only**

Problem Description:

(Please be as specific as possible, and explain what you were doing when the problem occurred.)

Please fax this form to:

GE Customer Support

(561) 998-6233